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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein - protein search, using sw model
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                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Issued Patents AA:*
1: /cgn2_6/ptodata/1.
2: /cgn2_6/ptodata/1.
3: /cgn2_6/ptodata/1.
4: /cgn2_6/ptodata/1.
5: /cgn2_6/ptodata/1.
6: /cgn2_6/ptodata/1.
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Match
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1 YEARIVTFGTWIYS
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158.930 Million cell updates/sec
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/cgn2_6/ptodata/1/1aa/5B_COMB.pep:*
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/cgn2_6/ptodata/1/1aa/6B_COMB.pep:*
/cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/1aa/backfiles1.pep:*
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GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
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         US-08-511-485-24
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US-09-201-932-24
US-09-201-932-10
US-08-800-929A-10
US-09-801-356-10
US-09-801-356-10
US-09-801-356-25
US-09-201-32-25
US-09-201-32-25
US-09-201-336-25
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US-09-201-336-25
US-09-201-356-25
US-09-201-356-25
US-09-201-356-25
US-09-201-356-4
US-08-657-759-2
US-09-617-053A-4
US-08-657-759-2
US-09-11-356-4
US-09-617-053A-4
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Sequence
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198	198	198	198	198	198	233	233	233	233	233	233	279	334	334	334	334	366
51.3	51.3	51.3	51.3	51.3	51.3	60.4	60.4	60.4	60.4	60.4	60.4	72.3	86.5	86.5	86.5	86.5	94.8
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US-08-511-485-6	US-09-579-692B-58	US-09-201-932-26	US-09-011-356-26	US-09-201-936-26	US-08-511-485-26	US-10-138-618-32	US-10-138-618-29	US-10-138-618-28	US-08-975-080-32	US-08-975-080-29	US-08-975-080-28	US-08-657-759-19	US-10-024-433-2	US-09-239-867-2	US-09-332-319-4	US-09-121-979-4	US-09-949-016-6032
Sequence 6, Appli	Sequence 58, Appl	Sequence 26, Appl	Sequence 26, Appl	Sequence 26, Appl	Sequence 26, Appl	•	Sequence 29, Appl	-	Sequence 32, Appl	-	•		Sequence 2, Appli	Sequence 2, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 6032, Ap

ALIGNMENTS

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RESULT 1
US-08-511-485-24
                                                                                                                                       US-08-511-485-24
                                                                                                                                                                      TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
LENCTH: 66 amino acids
TYPE: amino acid
STRANDEDNESS: not releva
TOPOLOGY: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 24, Application US/08511485
Patent No. 5919912
GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: Mackenzie, Alexander E.
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                             Matches
                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/511,485
PILING DATE: 04-AUG-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 07540/002001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                       MOLECULE TYPE:
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CITY: Boston
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1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                             66;
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                                                                                                                                                       protein
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                                                                           100.0%; Score 386; DB 2; 100.0%; Pred. No. 4.1e-43;
                                                           0; Mismatches
                                                             0;
                                                                                               Length 66;
                                                             Indels
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                                                           Gaps
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YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60

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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIME TITLE OF INVENTION: PROBES, AND DETECTION METHODS FILE REFERENCES: 07891/003002

CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14

EARLIER APPLICATION NUMBER: PCT/IB96/01022

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1995-08-04

EARLIER APPLICATION NUMBER: 08/511,485

EARLIER APPLICATION NUMBER: 08/511,485

EARLIER FILING DATE: 1995-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REPERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
FEARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-08-05
EARLIER FILING DATE: 1995-08-04
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US-09-011-356-24
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NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 24
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SOFTWARE: FRATSEQ for Windows Version 3.0
SEQ ID NO 24
LENGTH: 66
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 24, Application US/09011356A Patent No. 6656704
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                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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-09-201-936-24
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Similarity 100.0%;
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                     for Windows Version 4.0
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Pred. No. 4.1e-43;
; Mismatches 0;
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; LENGTH: 66
; TYPE: PRT
; ORGANISM: Mus m
US-09-011-356-24
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CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FBSESEQ for Windows Version 4.0
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Patent No. 5919912

GENERAL INFORMATION:

APPLICANT: Korneluk, Robert G.

APPLICANT: Mackenzie, Alexander E.

APPLICANT: Baird, Stephen

TITLE OF INVENTION: MANMALIAN IAP GENE FAMILY, PRIMERS,

TITLE OF INVENTION: PROBES, AND DETECTION METHODS

NUMBER OF SEQUENCES: 38

CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 24
LENGTH: 66
TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                  Sequence 10,
                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Korneluk, Robert G. APPLICANT: MacKenzie, Alexander E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS, TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Baird, Stephen APPLICANT: Liston, Peter
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Pred. No. 4.1e-43,
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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ADDITED TO STREET: STREET: BOSTON MA

ADDRESSEE: Fish & Richardson P.C. STREET: 225 Franklin Street

COUNTRY:

RY: USA 02110-2804

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TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND TITLE OF INVENTION: DISEASE TILE OF INVENTION: DISEASE FILE REFERENCE: 07891/009002

CURRENT APPLICATION NUMBER: US/09/212,971B

CURRENT FILING DATE: 1998-12-16

EARLIER APPLICATION NUMBER: 60/017,354

EARLIER APPLICATION NUMBER: 60/017,354

EARLIER APPLICATION NUMBER: 60/030,590

EARLIER FILING DATE: 1996-04-26

EARLIER FILING DATE: 1996-11-14

EARLIER APPLICATION NUMBER: 60/030,590

EARLIER FILING DATE: 1997-02-13

NUMBER OF SEQ ID NOTE: 1997-02-13

NUMBER OF SEQ ID NOS: 17

SOPTWARE: FastSEQ for Windows Version 4.0

LENGTH: 496
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US-09-212-971-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10, Application US/09212971B Patent No. 6107041
                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexander E
APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
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NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0754
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/511,485
PILING DATE: 04-AUG-1995
CLASSIFICATION: 514
CCLASSIFICATION: 514
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STRANDEDNESS: not rel
TOPOLOGY: both
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 496 amino acids
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Query Match
Best Local Similarity
Thes 66; Conserve
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                                                                                         ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-800-929A-10
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Best Local Similarity 100.
Matches 66; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.
CURRENT APPLICATION DATA:
APPLICATION UNMEER: US/08/800,929A
FILING DATE: 13-FEB-1997
CLASSIFICATION: 424
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 26-APR-1996
ATTORNBY/AGENT INFORMATION:
NAME: Bisker-Brady, Kristina
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 496 amino acids
TYPE: amino acid
STRANDEDNESS: single
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APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin I
APPLICANT: pratt, Christine
                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
00/030,590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 07891/009001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                                              TELEFAX: 617-428-7045
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Boston
STATE: MA
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                 100.0%; Score 386; DB 3; ilarity 100.0%; Pred. No. 4.7e-42; Conservative 0; Mismatches 0;
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IAPS AND NAIP
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                                                    Length 496;
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APPLICANT: LISTON, Peter
APPLICANT: Baird, Stephen
APPLICANT: Baird, Stephen
APPLICANT: Brang, Benjamin K
APPLICANT: Pratt, Christine
TITILE OF INVENTION: DETECTION AND MODULATION INTEL
TITLE OF INVENTION: DISEASE
FILE REFERENCE: 07891/009003
CURRENT APPLICATION NUMBER: US/09/617,053A
CURRENT FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOCTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10
             TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-617-053A-10
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Best Local Similarity 100.0%; P
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                             APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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APPLICANT: MacKenzie, Alexan
  SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  324 PGCKYL 329
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 PGCKYL 66
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Windows Version 3.0
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Pred. No. 4.7e-42;
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DIAGNOSIS AND
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TREATMENT OF PROLIFERATIVE
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CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 10
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; LENGTH: 496
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-201-936-10
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US-09-672-717-225
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                                                                                                                                             Sequence 225, Application US/09672717 Patent No. 6673917 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 10, App.
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APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OP INVENTION: Antisense IAP Nucleic Acids and Uses
FILE REFERENCE: 07891/025001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 496
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Mus musculus
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                                                                                                                                                                                                                                                                                                                                                 264 YEÁRÍVTFGTWIYSVNKEQLÁRÁGFYÁLGEGDKVKCFHCGGGLTDWKPSEDÞWDQHÁKCY 323
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Pred. No. 4.7e-42;
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Pred. No. 4.7e-42;
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RESULT 13
US-08-311-485-25
i Sequence 25, Application US/08511485
i Sequence 25, Application US/08511485
i Patent No. 5919912
i GENERAL INFORMATION:
i APPLICANT: Morkenzie, Alexander
i APPLICANT: Mackenzie, Alexander
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCES: 07981/003004
CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER PILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 09/576,956
EARLIER APPLICATION UMBER: 09/576,956
EARLIER APPLICATION UMBER: 09/576,956
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-201-932-10
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US-09-672-717-225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 10
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CURRENT FILING DATE: 2000-09-28
NUMBER OF SEQ ID NOS: 231
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 225
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Best Local Similarity 100.0%;
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APPLICANT: MacKenzie, Alexander B.
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TYPE: PRT
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                                                                                                                                                                                 324 PGCKYL 329
                                                                                                                                                                                                                                                           INFORMATION:
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                                                                                Application US/08511485
      Alexander E.
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Pred. No. 4.7e-42;
Mismatches 0;
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APPLICANT: KOTTALIK, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PR.
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: PCT/1B96/01022
EARLIER APPLICATION NUMBER: PCT/1B96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
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Patent No. 6541457
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SEQUENCE CHARACTERISTICS:
LENGTH: 66 amino acids
TYPE: amino acid
STRANDEDNESS: not releva
TOPOLOGY: both
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Best Local Similarity
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ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0754
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5970
NUMBER OF
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COMPUTER READABLE FORM:

MEDIUM TYPE: F10ppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC F0C-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS

OPERATER: PS-T-T-T-PG-DOS/MS-DOS
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS
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TELEFAX: 200154
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Pred. No. 1.7e-40;
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCES: 07981/003002
CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
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; ORGANISM: Homo sapiens
US-09-011-356-25
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US-09-011-356-25
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US-09-201-936-25
       Sequence 25, Application US/09201932A
PATENT NO. 6689562
GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRI
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
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Matches
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SOFTWARE: FRATSEQ for Windows Version 4.0
SEQ ID NO 25
LENGTH: 66
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Best Local
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FILE REFERENCE: 07891/003004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Baird, Stephen APPLICANT: Liston, Peter
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APPLICANT: MacKenzie, Alexander E.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 66
TYPE: PRT
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Local Similarity 95.5%;
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95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                            Score 366; DB 4;
Pred. No. 1.7e-40;
1; Mismatches 2

    Mismatches

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                                   PRIMERS,
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; SEQ ID NO 25;
LENGTH: 66;
TYPE: PRT
ORGANISM: Homo sapiens
US-09-201-932-25
; Sequence 4, Application US/10024433; Patent No. 6797473; GENERAL INFORMATION: ; APPLICANT: Robert G. Korneluk et al.; TITLE OF INVENTION: METHODS AND COMPOUNDS; TITLE OF INVENTION: MALE FERTILITY
                                                                                                     RESULT 18
US-10-024-433-4
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US-09-239-867-4
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EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: POT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
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Best Local S
Matches 63
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APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS
TITLE OF INVENTION: MALE FERTILITY
FILE REFERENCE: 07891/018002
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/09/239,867
CURRENT FILING DATE: 1999-01-29
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CURRENT
EARLIER
EARLIER
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PRIOR FILING DATE: 1998-
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Pred. No. 1.7e-40;
1; Mismatches 2
                                                                                                                                                                                                                                                                                                            Score 366; DB 3;
Pred. No. 7.9e-40;
1; Mismatches 2;
                   FOR MODULATING
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; FILE REFERENCE: 07891/018002
; CURRENT APPLICATION NUMBER: US/10/024,433
; CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: 09/239,867
PRIOR FILING DATE: 1999-01-29
; NUMBER OF SEQ ID NOS: 10
; SOPTWARE: FASUSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 236
; TYPE: PRT
; ORGANISM: Homo Sapiens
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US-08-511-485-4
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                                                                              US-08-511-485-4
                                                                                                                                                       SOFTWARE: PATENTIN Release #1.0, Ver CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/511,485
FILING DATE: 04-AUG-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 07540/00200
REFERENCE/DOCKET NUMBER: 07540/00200
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEPAX: 617/542-8906
TELEY 200154
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 497 amino acids
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Query Match
Best Local Similarity
Matches 63; Conserv
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Best Local Similarity
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MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Korneluk, Rober APPLICANT: Mackenzie, Ales APPLICANT: Baird, Stephen
                                                                                            TOPOLOGY: bo
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                                                                                                                            TYPE: amino acid
STRANDEDNESS: unl
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ilarity 95.5%;
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                                                                                                                              unknown
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95.5%;
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Pred. No. 7.9e-40;
        Score 366; DB 2; Length 497; Pred. No. 1.9e-39; Indels
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CURRENT APPLICATION NUMBER: US/09/212,971B
CURRENT FILING DATE: 1998-12-16
EARLIER APPLICATION NUMBER: 60/017,354
EARLIER FILING DATE: 1996-04-26
EARLIER APPLICATION NUMBER: 60/030,590
EARLIER FILING DATE: 1996-11-14
EARLIER APPLICATION NUMBER: 08/800,929
EARLIER APPLICATION NUMBER: 08/800,929
EARLIER FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4
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US-09-212-971-4
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                                                                                                                                                                                                                                                                    Patent No.
                                                                                                                                                                                                                                                                                 Sequence 4,
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Best Local Similarity
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APPLICANT: MacKenzie, Alexander
                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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                                                                                      APPLICANT: Pratt, Chi
TITLE OF INVENTION: I
TITLE OF INVENTION: I
TITLE OF INVENTION: I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
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                                                   CORRESPONDENCE ADDRESS
                                                                       NUMBER OF SEQUENCES:
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                      STREET:
                                    ADDRESSEE:
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Boston
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                                                                   Tsang, Benjamin K
Pratt, Christine
NVENTION: DETECTION AND M
NVENTION: IAPS AND NAIP F
NVENTION: DISEASE
SEQUENCES: 17
                      176 Federal Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                              Baird,
                                                                                                                                                                                                               MacKenzie,
                                                                                                                                                                                         Liston, Peter
                                                                                                                                                                                                                                   Korneluk, Robert G
                                    Clark & Elbing LLP
                                                                                                                                                                            Stephen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.8%;
                                                                                                                                                                                                               Alexander E
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Pred. No. 1.9e-39;
1; Mismatches 2
                                                                                                          MODULATION OF FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
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COUNTRY:

USA

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COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: PastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/800,929A
FILING DATE: 13-FEB-1997
CLASSIFICATION UNBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 16-APR-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 17-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Bisker-Brady, Kristina
REGISTRATION NUMBER: 07891/009001
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
; LENGTH: 497
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-617-053A-4
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Best Local Similarity
Matches 63; Conserve
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                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexande:
APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
                                                                                 CURRENT APPLICATION NUMBER: US/09/617,053A CURRENT FILING DATE: 2000-07-14 PRIOR APPLICATION NUMBER: US 08/800,929 PRIOR FILING DATE: 1997-02-13 NUMBER OF SEQ ID NOS: 17 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09617053A Patent No. 6300492
                                                                                                                                                                                                                                         TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE TITLE OF INVENTION: DISEASE FILE REFERENCE: 07891/09903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 497 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
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MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   325 PGCKYL 330
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95.5%;
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RESULT 24
US-09-201-936-4
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Best Local S
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTION DATA:
APPLICATION NUMBER: US/08/657,759
FILING DATE: 31-MAY-1996
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: ARCD:220
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application US/08657759 Patent No. 6511828
                                                                                                                                                                                                                                      Matches
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Thompson,
APPLICANT: Duckett,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARFULCANT: Duckett, Colin S.
TITLE OF INVENTION: HUMAN AND DROSOPHILA INHIBITORS
TITLE OF INVENTION: OF APOPTOSIS PROTEINS (IAP8)
NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
ADDRESS:
                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U
ZIP: 77210
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                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 497 amino acids
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                                                                                                                                                                  265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
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                                                                                                                                                                                       YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
                                                                                                  PGCKYL 330
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          United States of America
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                                                                                                                                                                                                                                                  94.8%; Score 366; DB 4; 95.5%; Pred. No. 1.9e-39;
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    Mismatches

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Pred. No. 1.9e-39;
1; Mismatches 2;
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                                                                                                                                                                                                                                                                  Length 497;
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CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILLING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILLING DATE: 1998-02-04
EARLIER FILLING DATE: 1998-02-04
EARLIER FILLING DATE: 1996-06-05
EARLIER FILLING DATE: 1996-06-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILLING DATE: 1995-08-04
NUMBER OF SEO ID NOS: 45
SOFTWARE: FASTERO for Windows Version 3.0
SEO ID NO 4
LENGTH: 497
                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/03002
CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
FEARLIER APPLICATION NUMBER: PCT/1B96/01022
FEARLIER FILING DATE: 1996-08-05
FEARLIER FILING DATE: 1996-08-05
FEARLIER APPLICATION NUMBER: 08/576,956
FEARLIER APPLICATION NUMBER: 08/511,485
FEARLIER APPLICATION NUMBER: 09/511,485
FEARLIER APPLICATION NUMBER: 09/511,485
FEARLIER FILING DATE: 1995-08-04
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                                                                                                                                                                                                                                                                                                SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
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                                                                                                  Matches
                                                                                                                                                 Query Match
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                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
                                                                                                                                                                                                                         ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                        ENGTH: 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / Match 94.8%;
Local Similarity 95.5%;
1ee 63; Conservative
                                                                                                                       Local Similarity
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                         1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWDQHAKCY 60
  YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                  Conservative
                                                                                                                    94.8%;
                                                                                                                                                                                                                                                                                                                            Windows Version 4.0
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                                                                                                Score 366; DB 4; L. Pred. No. 1.9e-39; 1; Mismatches 2;
                                                                                                  Indels
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Query Match
Best Local Similarity
Matches 63; Conserve
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; ORGANISM: Homo sapiens
US-09-672-717-219
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US-09-201-932-4
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US-09-672-717-219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-201-932-4
            NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 497
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/09201932A Patent No. 6689562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/672,717
CURRENT FILING DATE: 2000-09-28
NUMBER OF SEQ ID NOS: 231
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 219
LENGTH: 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 219, Application US/09672717 Patent No. 6673917
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: LaCasse, Bric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OF INVENTION: Antisense IAP Nucleic
TITLE OF INVENTION: Thereof
                                                                                                                                 EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PR
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003004
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Baird, Stephen APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 07891/025001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Korneluk,
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95.5%;
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Pred. No. 1.9e-39;
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Query Match

94.8%;

Score 366;

DB 4;

Length 497;

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APPLICANT: UNIVERSION:
APPLICANT: UNIVERSION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CLOO1307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 05/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: PASELSEQ for Windows Version 4.0
SEQ ID NO 6032
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US-09-121-979-4
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US-09-949-016-6032
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                                                                                                                                      NUMBER OF SEQ ID NOS: 4
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
Query Match
Best Local Similarity
Matches 54; Conserv
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                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09121979 Patent No. 6159709
                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: Holcik, Martin
APPLICANT: Liston, Peter
TITLE OF INVENTION: XIAP IRES AND USES THEREOF
FILE REFERENCE: 07891/021001
CURRENT APPLICATION NUMBER: US/09/121,979
CURRENT FILING DATE: 1998-07-24
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Matches 63; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human
-09-949-016-6032
                                                                                LENGTH: 236
TYPE: PRT
ORGANISM: Homo sapiens
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TYPE: PRT
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Similarity 95.5%;
63; Conservative
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   Conservative
                86.5%;
81.8%;
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Score 334; DB 3;
Pred. No. 1.2e-35;
8; Mismatches 4
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1; Mismatches 2;
                                Length 236;
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OF DETECTION AND USES THEREOF
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APPLICANT: KOTTREINK, Robert G.
APPLICANT: Holcik, Martin
APPLICANT: Liston, Peter
TITLE OF INVENTION: XIAP IRES AND USES THEREOF
FILE REFERENCE: 07891/021002
CURRENT APPLICATION NUMBER: US/09/332,319
CURRENT FILING DATE: 1999-06-14
EARLIER APPLICATION NUMBER: 09/121,979
EARLIER FILING DATE: 1998-07-24
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 236
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                                                                                                                                         ; SOFTWARE: FastSEQ for Wi
SEQ ID NO 2
; LENGTH: 236
; TYPE: PRT
; ORGANISM: Homo sapiens
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APPLICANT: Robert G. Korneluk et al
TITLE OF INVENTION: METHODS AND CON
TITLE OF INVENTION: MALE FERTILITY
FILE REFERENCE: 07891/018002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
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Patent No. 6171821
GENERAL INFORMATION:
                                                              Matches
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Best Local S
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CURRENT APPLICATION NUMBER: US/09/239,867
CURRENT FILING DATE: 1999-01-29
PRIOR APPLICATION NUMBER: 60/073,001
PRIOR FILING DATE: 1998-01-29
NUMBER OF SEQ ID NOS: 10
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1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
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                                                                              Similarity
                                                                                                                                                                                                         FastSEQ for Windows Version 4.0
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milarity 81.8%;
Conservative
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METHODS AND COMPOUNDS
                                                                            86.5%;
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                                                            Score 334; DB 3;
Pred. No. 1.2e-35;
8; Mismatches 4
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Pred. No. 1.2e-35;
B; Mismatches 4
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                                                                                           Length 236;
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                                                               Indels
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PGCKYL 66

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RESULT 33
US-08-657-759-19
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-024-433-2
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US-10-024-433-2
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APPLICANT: Robert G. Korneluk et al.
APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING
TITLE OF INVENTION: MALE PERTILITY
FILE REFERENCE: 07891/018002
CURRENT APPLICATION NUMBER: US/10/024,433
CURRENT APPLICATION NUMBER: US/10/024,433
CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: 09/239,867
PRIOR FILING DATE: 1999-01-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence 19, Application US/08657759
Patent No. 6511828
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 86.5%;
Best Local Similarity 81.8%;
Matches 54; Conservative
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/657,759
FILING DATE: 31-WAY-1996
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: ARCD:220
TELEPHONE: (512) 418-3000
TELEPHONE: (512) 418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/10024433 Patent No. 6797473
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APPLICANT: Duckett, Colin S.
TITLE OF INVENTION: HUMAN AND DROSOPHILA INHIBITORS
TITLE OF INVENTION: OF APOPTOSIS PROTEINS (IAP8)
                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64 PGCKYL
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GENERAL INFORMATION:
APPLICANT: Altieri, Dar
ITILE OF INVENTION: CEL.
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 34
                                                                       Matches
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                                                                                                                                                                                                                                                                                                                               PILING DATE: 20-NOV-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/031,435
PILING DATE: 20-NOV-1996
PILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-502
                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7000
TELEPAX: 202-467-7176
INFORMATION FOR SEQ ID NO: 28:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 20036-5869
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,080
                                                                                                                                                      STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
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LENGTH: 53 amino acide
                                                                                        Local
                                                                                                                                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                     27 ALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18 EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
47; Conserv
                                                                       1 Similarity
38; Conserv
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ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
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                                                                       Conservative
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                                                                                      95.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dario C.
SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35
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                                                                                                                                                                                                                                                                                                                                     044574-5022-01-WO
                                                                      1; Mismatches
                                                                                      Score 233; DB 3;
Pred. No. 3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 279; DB 4;
Pred. No. 3.1e-29;
1; Mismatches 1
                                                                                                      Length 50;
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                                     66
                                                                       Indels
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US-08-975-080-29 ; Sequence 29, Application US/08975080 ; Patent No. 6245523

RESULT 35

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                                                                                                                                                                                                                                                                                                                                                              Sequence 32, Application US/08975080 Patent No. 6245523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,080
FILING DATE: 20-NOV-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELEPHONE: 20-467-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION: APPLICANT: Altier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION: APPLICANT: Altier
                                           ZIP: 20036-5869

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
              APPLICATION NUMBER: US/0 FILING DATE: 20-NOV-1997
                                                                                                                                                                                           STATE:
                                                                                                                                                                                                      STREET: 1800 M St
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 1800 M 50
CITY: Washington
                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
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1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202-467-7176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60.4%;
                                                                                                                                                                                                                                                                                               SURVIVIN, A PROTEIN THAT INHIBITS CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dario C.
SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                             US/08/975,080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 233; DB 3
Pred. No. 3e-23;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 3; Length 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
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Social Sequence 28, 75, 10 Sequence 28, 10 Seq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 37
                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/975,080

APPLICATION NUMBER: US 60/031,435

ATTORNEY/AGENT INFORMATION:

REGISTRATION NUMBER: 30,988

REFERENCE/DOCKET NUMBER: 044574-5022

TELEPHONE: 202-467-716

INFORMATION FOR SEQ ID NO: 28:

SEQUENCE CHARACTERISTICS:

SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 202-46/-/1/0
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:

co smino acids
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REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 95.0 1es 38; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 20-NOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                    TOPOLOGY: linear MOLECULE TYPE: protei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 35
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                                                                                                          TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Washington
                                                                                                                                                                                       LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/10138618
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-NOV-1996
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95.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dario C.
SURVIVIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
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Pred. No. 3e-23;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                044574-5022-01-WO
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                                                                                                                                  RESULT 39
US-10-138-618-32
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US-10-138-618-29
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FILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY,AGENT INFORMATION:
NAME: Adler, Reid G:
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7706
TELEPHONE: 202-467-7706
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
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Sequence 29, Application:
Sequence 29, Application:
Sequence 29, Application:
Patent No. 6800737
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
CELULIAR APOPTOSIS, AND ITS MODULA
CELLULAR APOPTOSIS, AND ITS MODULA
                                  Sequence 32, Application US/10138618
Patent No. 6800737
GENERAL INFORMATION:
APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN,
                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 29:
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ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                     27 ALGEGDKVKCFHCGGGLTDWKFSEDPWDQHAKCYFGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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95.0%;
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                    SURVIVIN, A PROTEIN THAT INHIBITS CELLULAR APOPTOSIS, AND ITS MODULATION
  35
                                                                                                                                                                                                                                                                                            Score 233; DB 4
Pred. No. 3e-23;
1; Mismatches
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Pred. No. 3e-23;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 32: US-10-138-618-32
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Patent No.
             COUNTRY: USA
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATION
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/511,485
FILING DATE: 04-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local Similarity
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TELEPHAX: 202-467-7176
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                             APPLICANT: Korneluk, Robert G.
APPLICANT: Mackenzie, Alexander E.
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAWAALIAN IAP
TITLE OF INVENTION: PROBES, AND DE
NUMBER OF SEQUENCES: 38
                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                STREET: 225
CITY: Boston
CLASSIFICATION:
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APPLICATION NUMBER: US/10/138,618 FILING DATE: 06-May-2002 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044
TELECOMMUNICATION INFORMATION:
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ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                      225 Franklin Street
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                                                                                                                                                                                                                                                                                         Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                         PROBES, AND DETECTION METHODS
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                                                                                                                                                                                                                                                                                                                                                                               MAMMALIAN IAP GENE FAMILY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
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Minimum :
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Perfect score:
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DB seq length: 2000000000
A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp2000s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
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386
1 YEARIVTFGTWIYS
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Gapop 10.0 , Gapext 0.5
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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0	Aae00365 Human IAP	Aay81440 Human TIA	Adb61820 Human inh	Aaw19745 Mouse inh	Adp23982 PRO polyp	Adl70166 Human X c	9 Human	Adi39804 Human inh	Adb80961 RING-SH c	Abg65663 Human inh	9985 Human	Aay59451 Human XIA		Human	Aao20511 Protein o	8 X-lin	U	0 Human	Adb61827 Rat inhib	7	Adb61828 Mouse inh	Abg65666 Mouse inh	Aaw69297 Murine XI	584 Mouse a	Description	

Nucleic acid encoding an inhibitor of apoptosis polypeptide - used to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection of susceptibility to apoptotic disease.

Claim 27; Page 79-80; 219pp; English

45	44	43	42	41	40	39	38	37	36	3 5	34	3	32	31	30	29	28	27	
198	198	198	198	198	198	198	198	212	258	260	279	279	306	325	325	326.5	328	334	
51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	54.9	66.8	67.4	72.3				84.2	84.6	85.0	86.5	
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AAY52703	AAW69295	AAW13546	AAW19747	AAW19582	ABP72159	ADO26592	ADB61813	ADB61833	ADB61830	ADK34975	ADB61829	ADI39821	ADB61832	AAE00367	ADB61831	ADR44576	AAE00366	AAU75747	
Aay52703	Aaw69295	Aaw13546	Aaw19747	Aaw19582	Abp72159	Ado26592	Adb61813	Adb61833	Adb61830	Adk34975	Adb61829	Adi39821	Adb61832	Aae00367	Adb61831	Adr44576	Aae00366	Aau75747	
Human cel	Human HIA	Human c-I	Human inh	Human apo	Inhibitor	Human API	Human inh	Zebra fis	Bovine in	Novel hum	Chicken i	Human NAI	Unidentif	Gorilla I	Gorilla i	X-IAP BIR		Human Inh	

ALIGNMENTS

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RESULT 1
AAW19584
ID AAW1
XX AAW19581
AC AAW1
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XX MOUS
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N-PSDB; AAT70839.
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22-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Apoptosis inhibitor; X-linked inhibitor of apoptosis protein; M-XIAP; HIV; AIDS; neurodegeneration; myelodysplastic syndrome; ischaemia; myocardial infarction; stroke; reperfusion injury; toxin-induced liver disease; gene therapy; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-SEP-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-FEB-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                 95US-00511485.
95US-00576956.
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264. .32
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RESULT 2
AAW69297
ID AAW6
XX AAW6
XX AW6
XX AW6
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Best Local (
This sequence is the murine XIAP protein, which is a inhibitor of apoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative diseases, specially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver nasopharnyx, thyroid, central nervous system, prostate, colon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and M-HIAP-2 (AAW19581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW19587) and at least one BIR (baculovirus HAP repeat) domain (see also AAW19588). The M-XIAP amino acid sequence was deduced from the m-xiap gene (AAT70839) isolated from a mouse embryo cDNA library. The IAP olypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, seleted from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease
                                                                                                                                                                                                                                                                                                        Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                 Inducing apoptosis in proliferative mammalian cells with inhibitor or NAIP polypeptide - also methods for prognosis based on presence and NAIP, specifically applied to cancers involving p53 mutations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Korneluk R,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer; ovarian cancer; adenocarcinoma; lymphoma; IAP; pancreatic c embryonic development; viral pathogenesis; autoimmune disorder; neurodegenerative disease; multiple sclerosis; lupus erythematosus; herpes virus infection; pox virus infection; adenovirus infection;
                                                                                                                                                                                       Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative
                                                                                                                                                                                                                                                                                                                                                  28-SEP-2000; 2000US-00672717
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The invention relates to an inhibitor of apoptosis (IAP) antisense nucleic acid (I) that inhibits IAP biological activity, regardless of length of the antisense nucleic acid, the IAP proteins may be mouse or human XIAP, HIAP1 or HIAP2. Also included are a pharmaceutical composition comprising a mammalian IAP antisense molecule and a method enhancing apoptosis in a cell, comprising administering a negative regulator of the IAP anti-apoptotic pathway to the cell. The IAP antisense inhibitor is useful for enhancing apoptosis in a cell in a mammal diagnosed with a proliferative disease. The method is useful for

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Example 12; Fig 4; 135pp; English.

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Matches 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treating a patient diagnosed with a proliferative disease like cancer. The IAP antisense molecule is useful to treat, ameliorate, improve, sustain or prevent proliferative diseases (e.g. ovarian cancer, adenocarcinoma, lymphoma, pancreatic cancer,) and also in diseases or conditions where apoptosis is involved or implicated (e.g. embryonic development, viral pathogenesis, autoimmune disorders, neurodegenerative diseases, multiple sclerosis, lupus erythematosus and infection by herpes virus, pox virus and adenovirus). The present sequence is a mouse IAP
This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                    Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                          Boudreault A,
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Pred. No. 2e-39;
Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CC embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has CC been implicated in the development of cancer, autoimmune disorders (for CC example systemic lupus erythematosis and multiple sclerosis) and viral CC infections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIRP, HIAP1 CC (cIAP2) and HIAP2 (cIAP1) all posses three BIR domains and carboxy CC terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and cyloper and the activity of IAPs may therefore have cytostatic activity of the intiation of apoptosis. Compounds CC which inhibit the activity of IAPs may therefore have cytostatic activity of the useful for the enhancement of apoptosis. The polypeptides of the invention CC are candidate peptide ligands for binding to the BIR domain of IAPs. They CC may be useful for the treatment of cancer and other neoplasms, such as leukaemias, colon carcinoma, cervical cancer, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell neces inhibitor of apoptosis. The present sequence is that of the mouse inhibitor of apoptosis (IAP) protein XIAP BIR3 domain CC which was used to demonstrate homology to human IAP protein BIR domains CC to which the peptides of the invention are targeted to bind.
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                                                                                                                                        N-PSDB;
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                                                                                                                                                                                                                                                                                           03-JUL-2002; 2002WO-US021002
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                                                 Disclosure; Fig 15A; 124pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                              lymphoma;
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                                                                                                                                                                                                                        UNIV COLUMBIA NEW YORK.
                                                                                                                                        ABZ58102
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                                                                                                                                                                                                                                                                                                                                                                                                                              of apoptosis; MIAP3; mouse; apoptosis; cancer; leukaemia; neuroblastoma; carcinoma; melanoma; cytostatic; gene therapy.
                                                                                                                                                                                        Shelanski
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                                                                                   encoding an inhibitor-of-apoptosis protein, useful for neurodegenerative disorder or cardiomyopathy.
                                                                                                                                                                                        ME;
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Pred. No. 1.1e-38;
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The present sequence is the protein sequence of murine apoptosis protein MIAP3. The invention provides a nucle

nucleic

acid,

inhibitor of

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RESULT 6
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP, HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma; cervical cancer; uterine cancer; testicular cancer; semall cell lung carcinoma; uterine cancer; renal cell carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   an antisense oligonucleotide, which specifically hybridises to a nucleic acid encoding an inhibitor of apoptosis protein, especially MIAP1, MIAP2, MIAP3, CIAP1 and XIAP. A claimed method for inducing a cell's death comprises contacting the cell with the nucleic acid under conditions permitting the nucleic acid to enter the cell, especially the use of a vector, liposome, or a mechanical or electrical means. The method is used to treat acute lymphocytic leukaemia, acute myelogenous leukaemia, lung cancer, breast cancer, ovarian cancer, prostate cancer, lymphoma, Hodgkin's disease, malignant melanoma, neuroblastoma, renal cell carcinoma and squamous cell carcinoma (all claimed)
This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat
                                                                                                                                                                                                                                        Polypeptide capable of forming baculovirus inhibitor of apopto
                                                                                                                                       Disclosure; Fig
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08-APR-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AEGE-) AEGERA THERAPEUTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAY-2003
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2002US-0370934P.
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                                                                                                                                       53pp; English.
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Pred. No. 1
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                                                                                                                                                                                                                                        complex with a polypeptide comprising is repeat domain useful for treating
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CC been implicated in the development of cancer, autoimmune disorders (for cammple systemic lupus erythematosis and multiple sclerosis) and viral confictions (including herpes virus, poxvirus and adenovirus. The control inflottors of apoptosis (IAPs) are a family of proteins possessing one or concrebaculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAP1) all posses three BIR domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three bard domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three bard domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three bard domains and carboxy (CIAP2) and HIAP2 (CIAP1) all posses three bard domains (Compounds the minibit the activity of IAPs may therefore have cytostatic activity (CIAP3) the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They can be useful for the treatment of cancer and other neoplasms, such as CI eukaemias, colon carcinoma, cervical cancer, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma compounds (CIAP) protein XIAP BIR3 domain compounds (CIAP) protein BIR domains (CIAP) protein BIR do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               embryonic development, viral pathogenesis, cancer, autoimmune disorder and neurodegenerative diseases. The failure of the apoptotic response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BIR) domain. The apoptosis pathway is known to play a critical
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                                                   1 YBARIVTEGTWIYSVNKEQLARAGEYALGEGDKVKCEHCGGGLTDWKPSEDPWDQHAKCY
                                                                                l Similarity
62; Conserv
              PGCKYL
PGCKYL
                                        YDARIVTFGTWLYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                              94.8%;
ilarity 93.9%;
Conservative
66
                   99
                                                                             Score 366; DB 7;
Pred. No. 6.1e-38;
3; Mismatches 1
                                                                                Indels
                                                                                0,
                                                                                Gaps
                                        60
                                                                                0
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Query Match

Length

Local

Human inhibitor of apoptosis (IAP) protein XIAP BIR3 domain. 04-DEC-2003 ADB61810 standard; protein; (first entry) 66

apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAPP; cIAPP; HIAPP; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemiā; colon carcinoma; cervical cancer; uterine cancer; testicular cancer; small cell lung carcinoma; uterine cancer; renal cell carcinoma; within's tumour; human; BIR 3 domain. baculovirus inhibitor of apoptosis repeat domain; BIR domain; XIAP;

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RESULT 7
ADB61810
ID ADB6
XX
ADB6180
AC ADB6
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XX
ADB7
DT 04-E
DT 04-
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08-APR-2002; 2002US-0370934P.
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Boudreault A,

Korneluk RG,

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RRESULT 8
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XX ADP9
XX ADP9
XX ADP9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                             protein labelling; peptide labelling;
irreversible affinity tagging residue; high throughput screening assay;
pharmaceutical agent; human; XIAP; BIR-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADP90805 standard; peptide; 110
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                                                                         05-DEC-2002; 2002GB-00028429
                                                                                                                                              04-DEC-2003; 2003WO-EP013715.
                                                                                                                                                                                                                                                                                         WO2004051270-A2
                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human XIAP protein BIR-3 domain
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       (NOVS ) NOVARTIS AG
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Pred. No. 6.1e-38;
1; Mismatches 2
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ID 34813
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                                                           29-JAN-1998;
29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Inhibitor of apoptosis protein; IAP; testis; TIAP; apoptosis; inhibitor; fertility; testicular cancer; male infertility; male birth control; X-linked inhibitor of apoptosis protein; XIAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      X-linked inhibitor of apoptosis protein, XIAP
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                                                                                                                                                    18-DEC-2001; 2001US-00024433
                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia
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                                                                                                                                                                                                                                                                               US2002086409-A1
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                                                           98US-0073001P.
99US-00239867.
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                                                                                                                                                                                                                                                                                                                                        specification"
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95.5%;
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Pred. No. 1.1e-37;
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RESULT 10
AAO20
AC AAO20
XX AO20
AC AAO20
XX Prote
XX Neurc
KW Neurc
KW APP F
OX APP F
OX Homo
XX Homo
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Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A substantially pure TIAP polypeptide (I), a member of IAP (inhibitor of apoptosis) family of proteins that is expressed in the testes. (I) is useful for identifying a compound that modulates TIAP biological activity (I) is useful for increasing apoptosis in a cell, preferably a germ-line cell and for increasing fertility in an animal. (I) is useful for treating or preventing apoptosis which occurs as a part of testicular cancer and male infertility. TIAP may be manipulated for use as a male birth control. TIAP polypeptides and nucleic acid sequences also have diagnostic use in the detection or monitoring of conditions involving aberrant levels of apoptosis. The present sequence represents the amino acid sequence of X-linked inhibitor of apoptosis protein, XIAP
  WPI; 2002-315796,
N-PSDB; AAK99405
                                                                                   Cohen D, Dengler UJ,
Reinhardt MWHM, Zusm
                                                                                                                                                                                                                                                                                                                                            01-OCT-2001; 2001WO-EP011345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Neuroprotective; nootropic; transgenic fly; Alzheimer's disease; amyloid precursor protein; tissue-specific expression control; hu
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                                                                                                                                                                      (NOVS)
                                                                                                                                                                                                                                                         29-SEP-2000; 2000US-0236893P.
14-JUN-2001; 2001US-0298309P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APP pathway modulator; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein of APP related human homologue hCP35211.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-JUN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA020511;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAO20511 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 236 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 3; Fig 4B; 24pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                             2002-315796/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002-642245/69.
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ilarity 95.5%;
Conservative
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                                                                                      Zusman
                                                                                                                Finelli AL,
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Pred. No. 2.7e-37;
1; Mismatches 2
                                                                                                             Freuler F,
                                                                                                             Konsolaki
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The invention relates to a transgenic fly whose genome comprises DNA encoding a polypoptide having the Abeta portion of human amyloid precursor protein (APP), fused to a signal sequence. The DNA sequence encodes a 123 (Abeta40) or 129 (Abeta42) amino acid sequence, given in the specific expression control sequence is operably linked to a tissue-specific expression control sequence is operably linked to a tissue-the fly an altered phenotype. The purpose of the invention is for identifying agents that inhibit or promote the expression and/or function of genes or encoded polypeptides which modify the APP pathway. The agent is a compound, triple helix DNA, antisense oligonucleotide, double stranded RNA molecule, ribozyme, or particularly an antibody. It is used to treat conditions such as Alzheimer's disease. The agent can be used as an APP pathway modulator or in gene therapy. This sequence represents the protein of the APP related human homologue hCP35211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 4; Page 112; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New transgenic fly, containing DNA encoding an Abeta portion of human APP, useful for identifying agents which modulate the APP pathway and which can be used to treat Alzheimer's disease.
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RESULT 11
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                                                                                    1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                       63; Conserv
                                                                  YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                             PGCKYL
                                              PGCKYL
                                                                                                        Conservative
                                               66
                                                                                                               94.8%;
                                                                                                    Score 366; DB 5; Le
Pred. No. 3.3e-37;
Mismatches 2;
                                                                                                      1,
                                                                                                                         Length 278
                                                                                                       Indels
                                                                                                      <u>,</u>
                                                                                                      Gaps
                                                                  105
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278 AA;

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toxin-induced liver disease; gene therapy; diagnosis
                               myocardial infarction; stroke; reperfusion
                                                Apoptosis inhibitor; X-linked inhibitor of apoptosis protein; XIAP; HIV; AIDS; neurodegeneration; myelodysplastic syndrome; ischaemia;
                                                                                                                                        Human apoptosis inhibitor XIAP
                                                                                                                                                                                                 02-SEP-1997
                                                                                                                                                                                                                                                                                                     AAW19581 standard; protein;
                                                                                                                                                                                              (first
                                                                                                                                                                                              entry)
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AAW19581
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                                           04-AUG-1995;
22-DEC-1995;
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                                           95US-00511485.
95US-00576956.
                                                                                                                                                                       96WO-IB001022
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265. .330
/label= BIR-3
                                                                                                                                                                                                                                                                                                                                                                                                                         439. .484
/label= R:
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and M-HIAP-2 (AAW19581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW19587) and at least one BIR (baculovirus IAP repeat) domain (see also AAW19587) and at least one BIR (baculovirus deduced from the xiap gene (AAT70836) isolated from a human foetal brain cDNA library. IAP polypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, seleted from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acid encoding an inhibitor of inhibit apoptosis in e.g. HIV or AIDS susceptibility to apoptotic disease.
Inducing apoptosis in or NAIP polypeptide -
                                       N-PSDB; AAV55038
                                                      WPI; 1998-467164/40.
                                                                                                                                                              13-FEB-1998;
                                                                                                                                                                                         20-AUG-1998.
                                                                                                                                                                                                                   WO9835693-A2
                                                                                                                                                                                                                                                                    Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide; proliferative disease; IAP; therapy; cancer; human; XIAP protein.
                                                                                                                                                                                                                                                                                                               Human XIAP protein.
                                                                                                                                                                                                                                                                                                                                                                                             AAW69294 standard; protein; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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N-PSDB; AAT70836.
                                                                                 Korneluk R,
                                                                                                                                    13-FEB-1997;
                                                                                                                                                                                                                                             Homo sapiens
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                                                                                 Mackenzie
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                                                                                                                                    97US-00800929
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proliferative mammalian cells with inhibitor also methods for prognosis based on presence
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Pred. No. 6.4e-37;
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                                                                                 Baird
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RESULT 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; TAB1; XIAP; X-linked inhibitor of apoptosis protein; TGF-beta; transforming growth factor-beta activated kinase 1; monocyte migration; TAK1 binding protein 1; extracellular matrix protein production; cell growth inhibitor; beta-amyloid protein deposition; immunosuppression; Transforming growth factor-beta.
                                                                                                                                                        Screening inhibitor
                                                                                                                                                                                                                                                    N-PSDB; AAZ48862.
                                                                                                                                                                                                                                                                                WPI; 2000-078337/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JP11326328-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human XIAP protein sequence.
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                                                                                        Claim 3; Page 28-30; 43pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                          (MATS/) MATSUMOTO K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and NAIP, specifically applied to cancers involving p53 mutations.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; protein;
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                                                                                                                                                     a substance which inhibits of apoptosis protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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. No. 6.4e-37;
ismatches 2;
                                                                                                                                                                                        combination of the X-linked
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This sequence represents the human XIAP protein. The invention relates to a method for screening a substance inhibiting the formation of a complex

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RESULT 14
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Best Local S
Matches 63
                                                                                                                                                                                                                                        The present inhibit expre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           between XIAP and TAB1, in which X-linked inhibitor of apoptosis protein (XIAP), transforming growth factor-beta activated kinase 1(TAK1) binding protein 1(TAB1) and a substance to be taded are contacted with each other and then the presence or formation of a complex between XIAP and TAB1 is detected. The substance can be used as a drug for extracellular matrix protein production enhancement, cell growth inhibition, monocyte migration, physiologically active substance induction, immunosuppression, and beta-amyloid protein deposition. A substance inhibiting the formation of a complex between TAB1 and XIAP as well as between XIAP and TGF-beta (Transforming growth factor-beta) type I and/or type II receptor is
                             oligonuclectides may be used to inhibit X-linked inhibitor of apoptosis expression in cells and tissues in vitro. The oligonuclectides are also useful for treating animals or humans, prone to a disease associated with X-linked inhibitor of apoptosis. The oligonuclectides may also be used prophylactically to prevent infection, inflammation or tumour formation
                                                                                                                                                                                                The present invention relates to antisense oligonucleotides designed to inhibit expression of the human X-linked inhibitor of apoptosis (the present sequence). Modified phosphorothicate 2'-MOE oligonucleotides are more effective inhibitors than unmodified oligonucleotides. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antisense compound useful for research reagents, diagnostics, prophylaxis and for treating disorders associated with X-linked inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-linked inhibitor of apoptosis; XIAP; hILP; MIHA; U45880; antisense; antiinflammatory; cytostatic; tumour.
                                                                                                                                                                                                                                                                                                                                                                                  Example 13; Col 43-48; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           apoptosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bennett CF,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           modulates
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PHARM INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression of X-linked inhibitor of apoptosis.
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95.5%;
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Pred. No. 6.4e-37;
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                                                                                                                                                                  The invention relates to an inhibitor of apoptosis (IAP) antisense nucleic acid (I) that inhibits IAP biological activity, regardless of length of the antisense nucleic acid, the IAP proteins may be mouse or human XIAP, HIAP1 or HIAP2. Also included are a pharmaceutical composition comprising a mammalalian IAP antisense molecule and a method enhancing apoptosis in a cell, comprising administering a negative regulator of the IAP anti-apoptotic pathway to the cell. The IAP antisense inhibitor is useful for enhancing apoptosis in a cell in a mammal diagnosed with a proliferative disease. The method is useful for treating a patient diagnosed with a proliferative disease like cancer. The IAP antisense molecule is useful to treat, ameliorate, improve,
                     sustain or prevent proliferative diseases (e.g. ovarian cancer, adenocarcinoma, lymphoma, pancreatic cancer,) and also in diseases or conditions where apoptosis is involved or implicated (e.g. embryonic development, viral pathogenesis, autoimmune disorders, neurodegenerative diseases, multiple sclerosis, lupus erythematosus and infection by herper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer; ovarian cancer; adenocarcinoma; lymphoma; IAP; pancreatic cembryonic development; viral pathogenesis; autoimmune disorder; neurodegenerative disease; multiple sclerosis; lupus erythematosus; herpes virus infection; pox virus infection; adenovirus infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; antisense; inhibitor of apoptosis; HIAP1; HIAP2; XIAP; cytostatic; cancer; ovarian cancer; adenocarcinoma; lymphoma; IAP; pancreatic cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fig 1; 135pp; English
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Pred. No. 6.4e-37;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated protein complex comprising a RING-SH 3 polypeptide and another polypeptide, useful for detecting cells infected with a virus, and for treating viral disorders caused by retroviruses, rhabdoviruses
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N-PSDB; ADB81002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 35; 176pp; English
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                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to inhibitor of apoptosis (iap)-like proteins (ilp) and polynucleotides encoding such proteins. Sequences of the invention are useful for inhibiting or stimulating apoptosis in target cells or for treating certain cancers. They are also useful in the immortalisation of cells for culture, for inhibiting the activation of cysteine proteases and to sustain host cell survival following viral infection. The ilp may also be used as a marker in gel separation procedures or as a standard in protein concentration determinations. The present sequence is human inhibitor of apoptosis-like protein.
                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New inhibitor of apoptosis-like protein (ilp) and polynucleotide encoding ilp, useful for inhibiting or stimulating apoptosis in target cells, treating certain cancers, or sustaining host cell survival following
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RESULT 18

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ADH74639
ADH77XX
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ADL70166
ID ADL7
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                                                                                                                                                                                 RESULT 19
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           that is diagnostic for the survival of patient with a prostate neoplastic condition. The method comprises measuring the level of inhibitor of apoptosis (IAP) polypeptide chosen from chosen from XIAP (X chromosomelinked inhibitor of apoptosis), cIAP1 and cIAP2 in a neoplastic prostate cell-containing sample from patients, and identifying correlation between the level of IAPs in the sample, where the correlation of an IAP with survival in the patients indicates IAP as a biomarker diagnostic. The method is useful for the prognosis of prostate neoplastic conditions such as prostate cancer. The method is efficient in determining the prognosis while the patient is still at an early stage of disease, and in monitoring the effectiveness of a particular treatment in a prostate neoplastic condition. The present sequence represents human XIAP.
20-MAY-2004
                                                            ADL70166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying biomarker that is diagnostic for survival of a patient with prostate neoplastic condition by measuring level of integrin associated protein in sample, and identifying correlation of the level in sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Biomarker; prostate neoplastic condition; inhibitor of apoptosis; XIAP; X chromosome-linked inhibitor of apoptosis; cIAP1; cIAP2;
                                                                                                                     ADL70166 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to a method for identifying a biomarker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO 2; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Reed JC, Krajewski S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-FEB-2002; 2002US-0356956P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                prostate cancer; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human XIAP polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-APR-2004 (first entry)
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                                                                                                                                                                                                                                                                          325
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                                                                                                                                                                                                                                                                                                                                    61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63;
                                                                                                                                                                                                                                                                                                                                                                                                                                   1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDPWDQHAKCY
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KRAJEWSKI S.
                                                                                                                                                                                                                                                                          PGCKYL 330
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(first entry)
                                                                                                               protein; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94.8%;
95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 366; DB 8;
Pred. No. 6.4e-37;
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AC ADP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is the protein sequence of human X chromosome linked CC inhibitor of apoptosis (XIAP). The invention is based on the discovery that IAPs, e.g. XIAP, are constitutively overexpressed in both Hodgkin's lymphoma (HL)-derived B-cell lines and in primary HL tissues, and that in B-cell lines they are associated with and inhibit in particular caspase.

3. Based on this finding, the invention provides a new therapy of HL, which is based on inhibitors of IAPs, especially XIAP, that reduce or celiminate the caspase inhibiting activity. The approach leads to the restoration of apoptotic mechanisms, which result in an increased number of cell death events in malignant HL cells. Since IAPs, in particular XIAP, are not overexpressed in normal tissues, the approach provides a selective therapy for HL. Suitable IAP inhibitors include molecules that reduce the level of IAP mRNA, reduce the level of the IAP, inhibit the binding of the IAP to a caspase or reduce the biological activity of the IAP, e.g. an antisense nucleic acid, short interfering RNA (siRNA). CC peptidomimetic. Diagnostic methods for the detection of HL using IAP apptide or peptidomimetic. Diagnostic methods for the detection of HL using IAP
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                 Matches
                                  PRO polypeptide SEQ ID NO:1160.
                                                                    18-NOV-2004
                                                                                                    ADP23982;
                                                                                                                                    ADP23982 standard; protein; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 497 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   specific agents are also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 11; SEQ ID NO 2; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Using inhibitors of apoptosis-inhibitor for preparation of pharmaceutical composition for treatment of Hodgkin's lymphomas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; inhibitor of apoptosis; IAP; XIAP; Hodgkin's disease; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kroenke M, Kashkar H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-AUG-2002; 2002DE-01037139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JUL-2003; 2003WO-EP007889
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human X chromosome linked inhibitor of apoptosis (XIAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2004-226745/21
                                                                                                                                                                                                                        325 PGCKYL 330
                                                                                                                                                                                                                                                                                              265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                                                                                  1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                                                                                                                                                                                                                                 63;
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                                                                                                                                                                                                                                                           PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                    (first
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                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                               94.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   provided.
                                                                                                                                                                                                                                                                                                                                                             Score 366; DB 8;
Pred. No. 6.4e-37;
1; Mismatches 2;
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antiinflammatory; antiarthritic; antirheumatic;

immunosuppressive;

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                                                                                                                                                                                                                                                                                                                  Systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis, clivenile chronic arthritis, a spondyloarthropathy, systemic sclerosis, an idiopathic inflammatory myopathy, Sjogren's syndrome, systemic consistency myopathy, Sjogren's syndrome, systemic consistency myopathy, Sjogren's syndrome, systemic consistency constitutes, aarcoidosis, autoimmune haemolytic anaemia, autoimmune chronic active memune-mediated renal consistency demyelinating disease of the central or peripheral nervous system, idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, a chronic inflammatory demyelinating polyneuropathy, a hepatobiliary cirhosis, granulomatous hepatitis, sclerosing cholangitis, primary cirhosis, granulomatous hepatitis, sclerosing cholangitis, billary cirhosis, granulomatous hepatitis, sclerosing cholangitis, conflammatory bowel disease, gluten-sensitive enteropathy, Whipple's disease, ar autoimmune or immune-mediated skin disease, a bullous skin consideration autoimmune chronic active intrices, an allergic clisease, asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity, urricaria, an immunologic disease of the lung, consideration associated disease, graft rejection or graft-versus-host disease. The present sequence represents a PRO protein
                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                       pneumonitis, a transplanta
graft-versus-host disease.
of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiasthmatic, hepatotropic, and respiratory activity. A polynucleotide of the invention may have a use in gene therapy. The PRO polypeptide, its agonist, antagonist, or antibody that specifically binds to the polypeptide is useful for treating an immune related disorder such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          polypeptide encoded by it. A protein of the invention has antiinflammatory, antiarthritic, antirheumatic, immunosuppressive, osteopathic, antidiabetic, dermatological, antipsoriatic, antialle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New PRO polypeptides and polynucleotides, useful for treating e.g. erythematosus, rheumatoid arthritis, diabetes mellitus, immune-mecrenal disease, or demyelinating diseases of the central or periphe
                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 7; SEQ ID NO 1160; 2940pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-419628/39.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nervous
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-2002; 2002US-0423394P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2004041170-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention relates to a novel isolated nucleic acid and the PRO
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                                                                                                                   61
                                                                                                                                                                                                                                       63;
                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                  497
                                                                               PGCKYL 330
                                                                                                                                                            YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
                                                                                                                                                                                  YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                     PGCKYL 66
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                                                                                                                                                                                                                                   94.8%;
ilarity 95.5%;
Conservative
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                                                                                                                                                                                                                                 Score 366; DB 8; 1
Pred. No. 6.4e-37;
1; Mismatches 2;
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                                                                                                                                                                                                                                                                          Length 497;
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RESULT 22
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ID ADB61
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RESULT 21 AAW19745

ADB61820 standard; protein; 66 AA

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Matches
                                                                                                                              Query Match
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                                                                                                                                                                                Mammalian IAP homologue A (MIHA) (AAW19745) is a murine homologue of baculovirus inhibitor of apoptosis protein (IAP). Its amino acid sequence was deduced from a cDNA clone (see also AAT72710) isolated from a mouse liver cDNA library on the basis of homology to Orgyia pseudotsuguta polyhedrosis virus IAP BIR and RING finger amino acid motifs (see also AAW19744). IAP homologues (see also AAW19744). IAP homologues (see also AAW19744-52) and their derivatives and chemical analogues can be used in methods for modulating apoptosis in animal cells, specifically for treatment, by inhibition, of degenerative and infectious disease or, by promotion, of cancer and autoimmune disease
                                                                                                                                                        Sequence 496
                                                                                                                                                                                                                                                                                                                   Claim 7; Page 44-47; 136pp; English.
                                                                                                                                                                                                                                                                                                                                             auto:immune diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                           Isolated protein homologues of viral inhibitors of apoptosis - used to modulate apoptosis for treatment of degenerative, infectious or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; degenerative disease; infectious disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAT72710
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy; diagnosis.
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                                                                                                                   Local
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324
                                                  264 YEARIVTEGTWTSSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                        61
                                                                           ,_
                                                                                                       62;
                                                                                                                   Similarity
                   PGCKYL
                                                                  YBARIVTEGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
PGCKYL 329
                                                                                                        Conservative
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264. .330
/label= BIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= RING_finger
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163. .230
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                                                                                                                  92.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 485
                                                                                                                Score 357; DB 2;
Pred. No. 8.6e-36;
                                                                                                        Mismatches
                                                                                                                              Length 496
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                                                                                                     Gaps
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CC Inis invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC (BIR) domain. The apoptosis pathway is known to play a critical role in CC embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has CC been implicated in the development of cancer, autoimmune disorders (for CC example systemic lupus erythematosis and multiple sclerosis) and viral CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC (cIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy CC (cIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy cerminal RIMS zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC (cIAP2) and HIAP2 (cIAP1) and Fas may therefore have cytostatic activity of though the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They be useful for the treatment of cancer and other neoplasms, such as CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC domain which was used to demonstrate homology to other human IAP protein CC BIR domains to which the peptides of the invention are targeted to bind.

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Matches 54
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                                                                                                 Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Polypeptide capable of forming a complex with a polypeptide comprising a baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Boudreault A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis pathway; embryonic development; viral pathogenesis; cance; autoimmune disorder; neurodegenerative disease; apoptotic response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer and other neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-513532/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-NOV-2002; 2002WO-CA001738
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       baculovirus inhibitor of apoptosis repeat domain; BIR domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human inhibitor of apoptosis (IAP) protein testis IAP BIR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-DEC-2003
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                           Similarity
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                        86.5%;
Score 334; DB 7;
Pred. No. 6.3e-34;
8; Mismatches 4
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                                               Length 66
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                                                                                                                                                                                                                                                                                                                independent translation and apoptosis. The method comprises exposing a crest compound to an X-linked inhibitor of apoptosis protein (XIAP) internal ribosome entry site (IRES) reporter cistron, and determining the amount of translation from the XIAP IRES reporter cistron exposed to the compound relative to the translation from the unexposed XIAP IRES reporter cistron, a relative increase in translation from the exposed XIAP IRES reporter cistron indicates a compound that increases XIAP IRES the IRES reporter cistron indicates a compound that increases XIAP IRES reporter cistron indicates a compound that increases XIAP IRES reporter cistron indicates a compound that increases XIAP IRES reporter (cap independent) translation. XIAP protein plays a critical role in the regulation of apoptosis by suppressing activation of dependent (cap independent) translation (thus leading to reduced which decrease XIAP IRES dependent translation (thus leading to reduced which decrease XIAP IRES dependent translation (thus leading to reduced expression of XIAP and hence increasing apoptosis) can be used for treating cancer. The methods can also be used for the identification of agents that upregulate XIAP translation and hence inhibit apoptosis, which can be used to treat autoimmune diseases, degenerative diseases or immunorejection. Such agents may, for example, be used to inhibit apoptosis of neurons in conditions such as Alzheimer's disease; islet
                       cells in autoimmune diabetes mellitus; photoreceptor cells in retinitis pigmentosa and diabetic retinopathy; and cardiomyocytes after myocardial infarction. They can also be used to enhance the survival of cell or organ transplants. XIAP IRES elements can also be incorporated into expression constructs which encode XIAP or other IAPS (inhibitor of apoptosis proteins, e.g., TIAP: AAV81440). Such constructs may be used in gene therapy to inhibit apoptosis in a cell. The present sequence represents human TIAP (an inhibitor of apoptosis protein), DNA encoding the man tiap (an inhibitor of apoptosis protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 82; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated X-linked inhibitor of apoptosis internal ribosome entry site, used to develop agents for treating, e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-338644/29.
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14-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VINU (-TOYU)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; inhibitor of apoptosis; IAP-like protein-2; ILP-2; chromosome 19q13.3-q13.4; transforming growth factor beta receptor; TGPbetaR; c-Jun N-terminal kinae; JNK; gene therapy; glutaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cancer; T-cell acute lymphoblastic leukaemia; neurodegenerative disease; retinal degeneration; hyperferritinaemia-cataract syndrome; cancer; autoimmune disease; diabetes; multiple sclerosis; cytostatic.
                                                                                                                                                                                                                                                                                                                        Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with transforming growth factor beta receptor modulating activity, and t nucleic acids that encode them, useful for treating, e.g. diabetes
(ILP-2). The hILP-2 gene is located on chromosome 19q13.3-q13.4. ILP-2 comprises a single amino-terminal domain known as baculovirus iap repeat (BIR), followed by a spacer region and a carboxy-terminal ring finger domain. It interacts with transforming growth factor beta receptor (TGFbetaR) and modulates TGFbetaR activity. It also potently inhibits apoptosis induced by overapression of Bax or by Caspase-9 and Apaf-1. It also activates C-Jun N-terminal kinase (JNK) activity. ILP-2 is used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-258135/26.
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                                                                                                                                                                                                                                                                                                    multiple sclerosis
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                                                                                                                                                               present sequence is human inhibitor of apoptosis (IAP)-like protein-2 p-2). The hILP-2 gene is located on chromosome 19q13.3-q13.4. ILP-2
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188. .223
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Pred. No. 2.8e
8; Mismatches
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No. 2.8e-33;
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RESULT 25
AAU75066
ID 75066
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                      This invention relates to a novel isolated nucleic acid molecule encoding a TIAP polypeptide (testes-specific inhibitor of apoptosis) protein. This gene is a homologue of the X-linked XIAP gene and is located on chromosome 12q22-23. The nucleotide and protein sequences of the invention and vectors containing these sequences may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate TIAP expression. Additionally, the nucleotide sequence may be used to express the TIAP protein by recombinant methods. Conversely, be used to express the TIAP protein by recombinant methods.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    apoptotic; cytostatic; anti-infertility; contraceptive; chromosome 12q22-23; transgenic animal; antibody; immunogen; testicular cell; testicular cancer; cancer; male infertility; male birth control; XIAP.
                                                                                                                                                                                                                                                                                                                                                                Nucleic acids encoding a testis specific apoptosis inhibitor protein (TIAP) useful for treating testicular cancers, cancers in non-testic tissues, male infertility, and for achieving male birth control.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIAP; apoptosis; testes specific inhibitor of apoptosis; human; apoptotic; cytostatic; anti-inferrility.
                                                                                                                                                                                                                                                                                                             Example 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-1998;
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DB; ABK13197.
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                                                                                                                                                                                                                                                                                                             Fig 4B; 29pp;
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ilarity 81.8%;
Conservative
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                                                                                                                                                                                                                                                                                                             English.
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Pred. No. 2.8e-33;
B; Mismatches 4
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                                                                                                                                                                                                                                                                                                                                                                          cancers in non-testicular ale birth control.
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antisense nucleic acid molecules may be administered to

down-regulate

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RESULT 26
ABG32417
ID ABG322XX
XX ABG32
XX Inhib
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Best Local (
                               Novel polypeptide, a member of inhibitor of apoptosis family of proteins that is expressed in testes useful for modulating apoptosis in cells, particular cells involved in male fertility.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JAN-1998;
29-JAN-1999;
                                                                                                                                                                                                                                                                                                    Korneluk RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2001; 2001US-00024433
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                                                                                                                                                                                                                                                                                                                                                                              (KORN/) KORNELUK R G. (LAGA/) LAGACE M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2002086409-A1
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DB; ABS52802.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           apoptosis protein, TIAP.
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                                                                                                                                                                                                                                                                                                    Lagace
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99US-00239867.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Encoded by nnn; start codon is illegible in
specification"
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                                                         Claim 1; Page 35-36; 41pp; English
                                                                                                                                           New inhibitor of apoptosis proteins and polynucleotides useful in vaccines for inducing an immune response against hyperproliferative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; inhibitor of apoptosis 7; IAPL7; cytostatic; antiapoptotic; IAP, apoptosis; V-Rel; cancer; NF-kappaB; chromosome 19; vaccine; gene therapy; hyperproliferative disease; transgenic animal; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human Inhibitor of apoptosis
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                                                                                                                      cancer.
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Pred. No. 2.8e-33;
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                                                                                                                                                 against hyperproliferative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transforming growth factor beta receptor; TGPbetaR; c-Jun N-terminal kinase; JNK; gene therapy; glucaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal colorectal acute lymphoblastic leukaemia; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chimpanzee; inhibitor of apoptosis; IAP-like protein-2; ILP-2; transforming growth factor beta receptor; TGFbetaR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chimpanzee IAP-like protein-2 (ILP-2) with TGFbetaR modulating activity.
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    WPI; 2001-258135/26
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                                                                                                                                                                                                                                                                                                                                                                                                                                       05-APR-2001.
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                                                                                     Duckett C,
                                                                                                                                                                           (USSH ) US DEPT HEALTH & HUMAN SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            retinal degeneration; hyperferritinaemia-cataract syndrome; cancer;
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Pred. No. 6.1e-33;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is chimpanzee inhibitor of apoptosis (IAP)-like CC protein-2 (ILP-2). ILP-2 comprises a single amino-terminal domain known CC as baculovirus larg repeat (BIR), followed by a spacer region and a CC carboxy-terminal ring finger domain. It interacts with transforming CC growth factor beta receptor (TGFbetaR) and modulates TGFbetaR activity. CC It also potently inhibits apoptosis induced by overexpression of Bax or CC by Caspase-9 and Apaf-1. It also activates C-Jun N-terminal kinase (JNK) CC activity. ILP-2 is used in the area of genetic testing for predisposition CC to diseases, such as cone-rod retinal dystrophy-2, retinitis pigmentosa, CC glutaricaciduria, T-cell acute lymphoblastic leukaemia, colorectal cancer and hyperferritinaemia-cataract syndrome owing to an ILP-2 deletion or CC mutation. The ILP is also used in the treatment of diseases associated CC with abnormal apoptosis such as cancer, autoimmune diseases helding cretinal degeneration. The ILP-2 gene is also used in gene therapy for CC treating patients suffering from ILP-2 gene deletions or mutations
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIR domain binding oligopeptide; BDB oligopeptide; melanoma inhibitor of apoptosis; ML-IAP; caspase inhibition; apoptosis; cancer; IAP antagonist; baculovirus IAP repeat domain; BIR domain; melanoma; breast cancer; colorectal cancer; lung cancer; ovarian cancer; central nervous system cancer; liver cancer; bladder cancer; pancreatic cancer; cervical cancer; leukaemia; fruit fly; sickle; small subunit; N-terminal; X-IAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with transforming growth factor beta receptor modulating activity, and the nucleic acids that encode them, useful for treating, e.g. diabetes and
   Deshayes K,
Vucic D;
                                                                                                                                                           07-FEB-2003; 2003US-00364645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-IAP BIR3 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADR44576 standard; protein; 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 236 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Fig 2; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              multiple sclerosis.
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                                                                                                                                                                                                                      07-FEB-2003; 2003US-00364645
                                                                                                                                                                                                                                                                                       02-SEP-2004
                                                                                                                                                                                                                                                                                                                                                 US2004171554-A1
                                                                                                                                                                                                                                                                                                                                                                                                           Unidentified
                                                                                                 (GETH ) GENENTECH INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               53;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PGCKYL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                   Fairbrother W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8,
                                Flygare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 328; DB
Pred. No. 1.6e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                   ٩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6e-32;
                                      Franklin MC,
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                                      Fischer S;
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63 60 0

WPI; 2004-651687/63

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RESULT 30
ADB61831
ID ADB61
XX BACul
XW BACul
XW BACul
XW BYSTE
XW BYSTE
XW Caspe
XW Caspe
XW Caspe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC that specifically binds melanoma inhibitor of apoptosis (ML-TAP) and contacting the cell with the oligopeptide, where the apoptosis is contacting the cell with the oligopeptide, where the apoptosis is contacting the cell with the oligopeptide, where the apoptosis is contacting the cell with the oligopeptide, where the apoptosis is composition of matter contained within the container; the composition of matter contained within the container; and a label affixed to the container, or a package insert included with the container. CC referring to the use of the composition of matter for the therapeutic treatment of or the diagnostic detection of a cancer; a method of correcting antagonist of the polypeptides comprising co-crystallising the potential antagonist with the Baculovirus IAP repeat (BIR) domain of an CC ML-IAP polypeptide to form a co-crystalline structure and determining if the potential antagonist binds to the BIR domain; determining whether the calls; a method of screening antagonists of an ML-IAP polypeptide comprising co-crystallising the potential antagonist with the BIR domain of an CC delms; a method of screening antagonist binds to the BIR domain, and determining if the potential antagonist binds to the BIR domain, and composition of a given patch and the candidate molecule that is class than or equal to 2.8 angstroms in the co-crystalline structure. The CC amino acid residue of a given patch and the candidate molecule that is class than or equal to 2.8 angstroms in the co-crystalline structure. The CC apoptosis in cells, preferably cancer cells such as a melanoma cell, a concer cell, a concer cell, a concer cell, a cancer cell, a liver cancer cell, and a leukaemia cell. This is the amino acid sequence of IAP BIR composition of the contral mervous system cancer cell, a cancer cell a concer cell a concer cell is concerted to cancer cell a cancer cell is concerted to cancer cell is concerted to cancer cell is concerted to cancer cell is cancer cell is concerted to cancer cell is cancer cell is ca
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                 baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma;
cervical cancer; uterine
                                                                                                                                                                                                                         Gorilla inhibitor of
                                                                                                                                                                                                                                                                                                                                                                   ADB61831 standard; protein; 66 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 10; Fig 5; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       increasing apoptosis in cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     invention describes an isolated BIR domain binding (BDB) oligopeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84.6%;
87.9%;
                                                                                                                                                                                                                      apoptosis (IAP) protein IAP BIR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 326.5;
Pred. No. 7.0
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testicular cancer;
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RESULT 31
AAE00367
ID AAEC
XX
AC AAEC
XX
DT 19-J

AAE00367

standard; protein; 236 AA

19-JUN-2001 AAE00367;

(first entry)

문 S 밁 S

61 13

PGCKYL 66

66

Matches Query Match Best Local

52; Similarity

Conservative

9

Score 325; DB 7; Pred. No. 8.4e-33 9; Mismatches

Length

Gaps

60 60 84.2**%;** 78.8**%**;

YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY YEAWLITFGTWMYSVNKEQLARAGFYAIGQEDKIQCFHCGGGLANWKPKEDFWEQHAKWY

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infections (including herpes virus, poxvirus and adenovirus. The inhibitors of apoptosis (TAPs) are a family of proteins possessing one or more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAR, HIAP1 (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and 9 which are proteases involved in the initiation of apoptosis. Compounds which inhibit the activity of IAPs may therefore have cytostatic activity through the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They may be useful for the treatment of cancer and other neoplasms, such as leukaemias, colon carcinoma, cervical cancer, uterine cancer, testicular
                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for example systemic lupus crythematosis and multiple sclerosis) and viral
                                         cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma and Wilm's tumour, and for enhancing apoptosis. The present sequence is that of the gorilla inhibitor of apoptosis (IAP) protein IAP BIR3 domain which was used to demonstrate homology to human IAP protein BIR domains to which the peptides of the invention are targeted to bind.
Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Polypeptide capable of forming a cobaculovirus inhibitor of apoptosis cancer and other neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 1B; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-513532/48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-2001; 2001US-0332300P
08-APR-2002; 2002US-0370934P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gorilla gorilla.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     small cell lung carcinoma; uterine cancer; renal cell carcinoma; Wilm's tumour; BIR 3 domain; gorilla.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-NOV-2002; 2002WO-CA001738
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A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a complex with a polypeptide comprising osis repeat domain useful for treating
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RESULT 32
ADB61832
ID ADB61
XX
AC ADB61
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC beta receptor (TGFbetaR) and modulates TGFbetaR activity. It also carboxy-
cc terminal ring finger domain. It interacts with transforming growth factor countries receptor (TGFbetaR) and modulates TGFbetaR activity. It also carboxy-
cc terminal ring finger domain. It interacts with transforming growth factor countries receptor (TGFbetaR) and modulates TGFbetaR activity. It also contently inhibits apoptosis induced by overexpression of Bax or by cc captage-9 and Apaf-1. It also activates c-Jun N-terminal kinase (JNK) cc cativity. ILP-2 is used in the area of genetic testing for predisposition cc activity. ILP-2 is used in the area of genetic testing for predisposition cc diseases, such as cone-rod retinal dystrophy-2, retinitis pigmentosa, clutaricaciduria, T-cell acute lymphoblastic leukaemia, colorectal cancer cc and hyperferritinaemia-cataract syndrome owing to an ILP-2 deletion or cutation. The ILP is also used in the treatment of diseases associated contained apoptosis such as cancer, autoimmune diseases, e.g., cc diabetes and multiple sclerosis and neurodegenerative diseases including retinal degeneration. The ILP-2 gene is also used in gene therapy for cc treating patients suffering from ILP-2 gene deletions or mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gorilla; inhibitor of apoptosis; IAP-like protein-2; ILP-2; transforming growth factor beta receptor; TGPbetaR; cytostatic; c-Jun N-terminal kinase, JNK; gene therapy; glutaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cancer; T-cell acute lymphoblastic leukaemia; neurodegenerative disease; retinal degeneration; hyperferritinaemia-cataract syndrome; cancer; autoimmune disease; diabetes; multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        transforming growth factor beta receptor modulating activity, and the nucleic acids that encode them, useful for treating, e.g. diabetes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-258135/26.
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                                       ADB61832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Fig 2; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-SEP-1999;
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                                                                                                   ADB61832 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 present sequence is gorilla inhibitor of apoptosis (IAP)-like protein
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                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
                                                                                                                                                                                                                                                                                                                                               PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                  YEAWLITFGTWMYSVNKEQLARAGFYAIGQEDKIQCFHCGGGLANWKPKEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ξ
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                                                                                                                                                                                                                                                                                  69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 325; DB 4; I
Pred. No. 3.7e-32;
9; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 236;
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baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAP1; CIAP2; HIAP2; CIAP1; RING zinc finger; caspase-3; caspase-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma;
cervical cancer; uterine cancer; testicular cancer;
small cell lung carcinoma; uterine cancer; renal cell carcinoma;
                                                                                                                                                                                                                                                                                                                                                    Boudreault A,
                                                                                                                                                                                                                                                                                                                                                                                           09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wilm's tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                       12-NOV-2002; 2002WO-CA001738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2003040172-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                            15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                        (AEGE-) AEGERA THERAPEUTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibitor of apoptosis (IAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                    Korneluk RG, La Casse E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIR 3 domain.
                                                                                                                                                                                                                                                                                                                                                      Liston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIR3 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         XIAP;
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Polypeptide capable of forming a complex with a polypeptide comprising a baculovirus inhibitor of apoptosis repeat domain useful for treating other neoplasms

Disclosure; Fig 1B; 53pp; English

CC This invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC [BIR] domain. The apoptosis pathway is known to play a critical role in CC embryonic development, viral pathogenesis, cancer, autoimmune disorders CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for CC example systemic lupus erythematosis and multiple sclerosis) and viral cc inhibitors of apoptosis (IARs) are a family of proteins possessing one or CC example systemic lupus erythematosis and multiple sclerosis) and viral CC (cIAP2) and HIAP2 (cIAP1) all posses three BIR domains and carboxy cterminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC which inhibit the activity of IAPs may therefore have cytostatic activity through the enhancement of apoptosis. The polypeptides of the invention care candidate peptide ligands for binding to the BIR domain of IAPs. They be useful for the treatment of cancer, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell carcinoma and domain which was used to demonstrate homology to human IAP protein BIR commains to which the peptides of the invention are targeted to bind.

Sequence 57 Ŗ,

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                                         Matches
                                                  Query Match
Best Local &
            11 WIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL
  N
                                                   Similarity
  WIYSVNKEQLSRAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHDKWHPGCKYL 57
                                                   79.3%;
91.1%;
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                                        Score 306; DE
Pred. No. 1.7e
3; Mismatches
                                    DB 7;
1.7e-30;
2;
                                                            Length
                                         0
                                        Gaps
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RESULT 34
ADB61829
ID ADB61
XX
AC ADB61
XX
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ADI39821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to inhibitor of apoptosis (iap)-like proteins (ilp) and polynucleotides encoding such proteins. Sequences of the invention are useful for inhibiting or stimulating apoptosis in target cells or for treating certain cancers. They are also useful in the immortalisation of cells for culture, for inhibiting the activation of cysteine proteases and to sustain host cell survival following viral infection. The ilp may also be used as a marker in gel separation procedures or as a standard in protein concentration determinations. The present sequence is human neural apoptosis inhibitory protein (NAIP)
baculovirus inhibitor of apoptosis repeat domain; apoptosis pathway; embryonic development; viral pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New inhibitor of apoptosis-like protein (ilp) and polynucleotide encoding ilp, useful for inhibiting or stimulating apoptosis in target cells, treating certain cancers, or sustaining host cell survival following
                                                                                        Chicken inhibitor of apoptosis (IAP) protein XIAP BIR3 domain.
                                                                                                                                                  04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Inhibitor of apoptosis-like protein; iap; ilp; apoptosis; therapy; cancer; cell immortalisation; cysteine protease; viral infection; cytostatic; virucide; baculovirus iap-like repeat; BIR; human; neural apoptosis inhibitory protein; NAIP.
                                                                                                                                                                                                               ADB61829
                                                                                                                                                                                                                                                                      ADB61829 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 53 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               baculovirus iap-like repeat (BIR) region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 2; SEQ ID NO 19; 42pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-391256/37
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human NAIP BIRa region #1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 18 EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                   EQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
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                                                                                                                                                  (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-00657759
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                                                                                                                                                                                                                                                                protein;
                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72.3%;
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                                                                                                                                                                                                                                                                      66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 7;
.8e-27;
pathogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 53;
                              BIR domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
   cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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CC Inis invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC apolypeptide that includes a baculovirus inhibitor of apoptosis repeat CC length domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for CC example systemic lupus erythematosis and multiple sclerosis) and viral cinfections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (cinary) and HIAP2 (cinary) all posses three BIR domains and carboxy CC terminal RING zinc fingers The IAPs bind and inhibit caspases -3, -7 and CC which are proteases involved in the initiation of apoptosis. Compounds CC which inhibit the activity of IAPs may therefore have cytostatic activity CC through the enhancement of apoptosis. The polypeptides of the invention care candidate peptide ligands for binding to the BIR domain of IAPs. They CC use that of the chicken inhibitor of cancer and other neoplasms, such as CC elekaemias, colon carcinoma, cervical cancer, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma CC and wilm's tumour, and for enhancing apoptosis. The present sequence is that of the chicken inhibitor of apoptosis (IAP) protein XIAP BIR3 domain CC which was used to demonstrate homology to human IAP BIR3 domains CC to which the peptides of the invention are targeted to bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              systemic lupus crythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XI. HIAP1; cIAP2; AIAP1; RING zinc finger; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma; cervical cancer; uterine cancer; testicular cancer; small cell lung carcinoma; uterine cancer; renal cell carcinoma; Wilm's tumour; BIR 3 domain; chicken.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 1B; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-513532/48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lubus erythematosis; multiple sclerosis; viral infection;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               other neoplasms.
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Similarity

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Best Local S
Matches 47
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                PGCKYL 66
                                   YERRIQTFLAWIYPVNKEHLAEAGFYSTGNGDHVVCFHCGGGLQEWKENEDPWDQHAKWF
                                                    YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                        Conservative
66
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                                                                       Score 279; DB Pred. No. 4.9e 5; Mismatches
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4.9e-27;
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Best Local S
                                                                                                                                                                                                                       This invention relates to a novel isolated polynucleotide comprising a nucleotide sequence selected from one of 1680 sequences, a mature protein coding portion of them, an active domain of them and their complementary sequences. The invention may be useful for the production of compounds with an antiarthritic, antiparkinsonian, neuroprotective, noctropic, immunosuppressive, cytostatic, antiparatic, antiparatic, antinflammatory, antibacterial, antiviral, antifungal or antiparasitic activity. In addition, the disclosed sequences may be useful for gene therapy. The polyapptides or their antibodies are useful for treating many diseases such as arthritis, Parkinson's, Alzhelmer's, autoimmune diseases, cancer, psoriasis, inflammatory bowel disease and infections caused by bacteria, viruses, fungi or parasites. The present sequence is that of a human relevance of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunosuppressive; cytostatic; antipsoriatic; antiinflammatory; antibacterial; antiviral; antifungal; antiparasitic; gene therapy; arthitis, Parkinson's, Alzheimer's; autoimmune disease; cancer; psoriasis; inflammatory bowel disease; infection; bacteria; virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Isolated polynucleotide encoding bone marrow derived polypeptides useful for treating, e.g., Parkinson's, Alzheimer's, cancer, arthritis, Crohn's disease, and inflammatory bowel disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-MAR-2000; 2000US-00519705.
19-MAY-2000; 2000US-00574454.
                                                                                                                                                                                Sequence 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-MAR-2001; 2001WO-US004941.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human polypeptide SeqID7057.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HYSE-) HYSEQ INC
                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YT,
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99
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                                                                                                                       47;
                                                            σ
                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              parasite; human
                                                                            YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWDQHAKCY
PRCKYL
                            PGCKYL 66
                                                          YEAQIITLGMWMYSVNKQQHAGAEFYALGKGDKVKCFCCGRRLTDWKPIEHPREQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO
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                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "OTHER= All Xaa's in this sequence are unknown amino acids or the site of a stop codon within the DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'label= OTHER
                                                                                                                                                                                                               invention.
                                                                                                                                  67.4%;
71.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                              504pp; English.
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                                                                                                                       0
                                                                                                                                    Score 260; DB 5;
Pred. No. 3.1e-24;
                                                                                                                       Mismatches
                                                                                                                                                 Length 151
                                                                                                                     Indels
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ACC ADB6

ACC AD
                                                                 This invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC (BIR) domain. The apoptosis pathway is known to play a critical role in cembryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (crimpicated in the development of cancer, autoimmune disorders (for example systemic lupus erythematosis and multiple sclerosis) and viral crifications (including herpes virus, poxvirus and adenovirus. The crimpications (including herpes virus, poxvirus and adenovirus. The CC (crimpications) and HIAP2 (crimpications) and HIAP2 (crimpications) and HIAP2 (crimpications) and the repeat (BIR) domains. Human IAP8, XIAP, HIAP1 (crimpications) and HIAP2 (crimpications) and the repeat (BIR) domains. Human IAP8, XIAP, HIAP1 (crimpications) and HIAP2 (crimpications) and the interest of cancer and inhibit caspases -3, -7 and crimpications are proteases involved in the initiation of apoptosis. Compounds which inhibit the activity of IAP8 may therefore have cytostatic activity (crimpications) and the relations of the bivention are cancer, small cell lung carcinoma, cervical cancer, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, remal cell carcinoma cancer, small cell lung carcinoma, uterine cancer, testicular cancer, which was used to demonstrate homology to human IAP protein BIR domains of the bovine inhibitor of apoptosis. The present sequence is that of the bovine inhibitor of apoptosis (IAP) protein BIR domains to which the peptides of the invention are targeted to bind.
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08-APR-2002; 2002US-0370934P.
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This invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC (BIR) domain. The apoptosis pathway is known to play a critical role in CC embryonic development, viral pathogenesis, cancer, autoimmune disorders (and neurodegenerative diseases. The failure of the apoptotic response has CC been implicated in the development of cancer, autoimmune disorders (for CC example systemic lugus erythematosis and multiple sclerosis) and viral CC infections (including herpes virus, poxvirus and adenovirus. The CC cancer baculovirus IAP repeat (BIR) domains. Human IAPS, XIAP, HIAP1 CC (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy CC terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC which inhibit the activity of IAPs may therefore have cytostatic activity CC through the enhancement of apoptosis. The polypeptides of the invention CC are candidate peptide ligands for binding to the BIR domain of IAPs. They can be useful for the treatment of cancer and other neoplasms, such as CC cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma
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08-APR-2002;
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This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex wit a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response habeen implicated in the development of cancer, autoimmune disorders (for example systemic lupus crythematosis and multiple sclerosis) and viral infections (including herpes virus, poxvirus and adenovirus. The
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                                                                                                                                                                                                                             Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating
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cervical cancer; uterine cancer; testicular cancer;
small cell lung carcinoma; uterine cancer; renal cell carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and Wilm's tumour, and for enhancing apoptosis. The present sequence that of the zebra fish inhibitor of apoptosis (IAP) protein XIAP BIR domain which was used to demonstrate homology to human IAP protein B domains to which the peptides of the invention are targeted to bind.
                                                                                                                                                                            Disclosure; Fig 1A; 53pp; English.
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                                                                                                                                                                                                                 and other neoplasms.
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Pred. No. 1.3e-18;
4; Mismatches 18
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The present invention relates to a method for characterisation of chromosome translocation T (11;18) (q2l;q2l) and its association with malignancies such as mucosa-associated lymphoid tissue (MALT)-lymphomas. Also disclosed are: the polynucleotide and polypeptide sequences for human mucosa-associated lymphoid tissue (MALT)-Lymphoma associated Translocation (MLT), and a novel mechanism of primary cell transformation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chromosome translocation; malignancy; mucosa-associated translocation; mucosa-associated lymphoid tissue-lymphoma associated translocation; MALT; MLT; primary cell transformation; apoptosis inhibitor 2; API2; tumour; cytostatic; human.
                                                                                                                                                                                                                                                                                                                                  New mucosa-associated lymphoid tissue-lymphoma associated translocation protein, useful in diagnosing and treating tumors.
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                                                                                                                                                                                                                                                             Disclosure; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inhibitors of apoptosis (IAPs) are a family of proteins possessing
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55.9%;
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Pred. No. 7.2e-17;
6; Mismatches 22
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                                                          protein CIAP2. The invention provides a nucleic acid, such as an antisense oligonucleotide, which specifically hybridises to a nucleic acid encoding an inhibitor of apoptosis protein, especially MIAP1, MIAP2, MIAP3, CIAP1, CIAP2 and XIAP. A claimed method for inducing a cell's death comprises contacting the cell with the nucleic acid under conditions permitting the nucleic acid to enter the cell, especially the use of a vector, liposome, or a mechanical or electrical means. The method is used to treat acute lymphocytic leukaemia, acute myelogenous leukaemia, lung cancer, breast acute lymphocytic leukaemia, acute myelogenous leukaemia, lung cancer, breast acute lymphocytic necephocytic leukaemia, renal squamous cell carcinoma (all claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    by expression of a fusion protein comprising at least apoptosis inhibitor 2 (APIZ) fused to another protein such as MIT. The MIT polymucleotide and polypeptide sequences, and the method of the invention are useful in diagnosing and treating tumours. The present sequence represents human APIZ.
   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is the protein sequence of inhibitor of apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 17A; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New nucleic acid encoding an inhibitor-of-apoptosis protein, useful for treating cancer, neurodegenerative disorder or cardiomyopathy.
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N-PSDB; ABZ58104.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-APR-2003
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Pred. No. 6.4e-16;
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Query Match Best Local Similarity

55.9%;

Score Pred.

198; DB 6; No. 8.4e-16;

Length 557;

Search completed: J Job time : 117 secs	Db	Ş	Dъ	Ş	Matches
mpleted : 117 g	315 WF	59 CY	255 HA	1 YE	38;
Search completed: June 15, 2005, 17:35:44 Job time : 117 secs	315 WFPRCEYL 322	59 CYPGCKYL 66	255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314	ARIVTFGTWIYSVN	38; Conservative
17::			PEQL	-EOF	6
35:44			ASAGFYYVGNSDI	ARAGFYALGEGDK	6; Mismatches 22; Indels
			VKCFC	VKCFH	22;
			CDGGLRCWE	CGGGLTDWK	Indels
			SGDDP	PSEDP	2;
			VQHAK	VDQHAK	2; Gaps 1;
			314	58	1;

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
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                                                                                                                   Published Applications AA:*

1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

9: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*

10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*

11: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*

12: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*

13: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

15: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

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10: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

11	10	9	8	7	თ	v	4	ω	N	_	Result No.
366	366	366	366	372	386	386	386	386	386	386	Score
94.8	94.8	94.8	94.8	96.4	100.0	100.0	100.0	100.0	100.0	100.0	Query
236	107	66	66	496	496	496	496	496	66	66	Query Match Length DB ID
13	9	16	9	16	16	16	9	9	16	9	8
US-10-024-433-4	US-09-965-967-20	US-10-600-272-25	US-09-201-936-25	US-10-482-952-5	US-10-600-272-10	US-10-636-065-225	US-09-201-936-10	US-09-974-592-10	US-10-600-272-24	US-09-201-936-24	ID
Sequence 4, Appli	Sequence 20, Appl	Sequence 25, Appl	Sequence 25, Appl	Sequence 5, Appli	Sequence 10, Appl	Sequence 225, App	Sequence 10, Appl	Sequence 10, Appl	Sequence 24, Appl	Sequence 24, Appl	Description

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4 4 4 W 4 10	41 42	. 338 398 39	335 3654	332	30	27 28	0 20 20 70 4	22 23	18 19 20	12 13 15 16
185 185	190 189	190 190	198 198	198 198	198 198	198	198 198	233 198	2334	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
49.0 47.9 47.9	49.2	49.2		51.3 51.3	51.3	51.3	51.3	50.4 51.3	60.55	9444 9444 9444 9444 9444 9444 9444
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US-10-482-952-1 US-10-041-859-14 US-10-041-859-8	US-10-041-859-12 US-10-323-643-10 US-09-974-592-12	US-09-201-936-28 US-10-041-859-18 US-10-600-272-28	-282- -717- -461-	US-10-636-065-221 US-10-600-272-6 US-10-730-476A-79	10-141-618-6 10-366-307-6	US-09-201-936-6 US-10-232-286-4	US-10-600-272-26 US-10-482-952-9 US-09-974-592-6	US-10-138-618-32 US-09-201-936-26	10-024-433-2 10-343-115-2 10-138-618-2	US-09-964-899-39 US-09-974-592-4 US-09-201-936-4 US-10-366-307-2 US-10-636-065-219 US-10-600-272-4
Sequence 1, Appli Sequence 14, Appl Sequence 8, Appli	12,	18, 28, 28,	`` ;	sequence 221, App Sequence 6, Appli Sequence 79, Appl		Sequence 6, Appli Sequence 4, Appli		sequence 29, Appi Sequence 32, Appl Sequence 26, Appl	8,2,2	39, 4, 1

ALIGNMENTS

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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
SEQIDNO 24
NUMBER: 09 SEQ ID NOS: 45
SOPTWARE: FASTSEQ FOR Windows Version 3.0
SEQ ID NO 24
LENGTH: 66
TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-201-936-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 24, Application US/09201936
Publication No. US20020187946A1
                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
100.0%; Score 386; DB 9; ilarity 100.0%; Pred. No. 1.2e-39; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIMERS,
                                              Length 66;
       Indels
    0
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5

YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60

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APPLICANT: MacKenzie, Alexander E
APPLICANT: Lieton, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Tsang, Benjamin K
APPLICANT: Tsang, Benjamin K
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DISECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: DISEASE
TITLE OF INVENTION: DISEASE
FILE REFERENCE: 07891/009004
CURRENT APPLICATION UNMBER: US/09/974,592
CURRENT FILING DATE: 2001-10-09
PRIOR APPLICATION NUMBER: US 08/817,053
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: KOTTALIN, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAWMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: MAWMALIAN IAP GENE FAMILY, PRIMERS,
FILE REFERENCE: 07891/00306
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT APPLICATION NUMBER: US/09/011,356
PRIOR APPLICATION NUMBER: US/09/01022
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILLING DATE: 1998-08-04
PRIOR APPLICATION NUMBER: US/08/576,956
PRIOR APPLICATION NUMBER: US/08/576,956
PRIOR APPLICATION NUMBER: US/08/511,485
PRIOR APPLICATION NUMBER: US/08/511,485
PRIOR APPLICATION NUMBER: US/08/511,485
PRIOR APPLICATION NUMBER: US/08/511,485
PRIOR FILLING DATE: 1995-08-04
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US-09-974-592-10
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US-10-600-272-24
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                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10, Application UPatent No. US20020120121A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Korneluk, Robert G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09974592
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GENERAL INFORMATION:

APPLICANT: KOTHEIUK, Robert G.

APPLICANT: MacKenzie, Alexander E.

APPLICANT: Baird, Stephen

APPLICANT: Baird, Stephen

APPLICANT: Liston, Peter

ITILE OF INVENTION: PROBES, AND DETECTION METHODS

FILE REFERENCE: 07891/003003

CURRENT APPLICATION NUMBER: US/09/201,936

CURRENT FILING DATE: 1998-12-01

EARLIER APPLICATION NUMBER: 09/011,356

EARLIER APPLICATION NUMBER: PCT/1B96/01022

EARLIER APPLICATION NUMBER: 08/576,956

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1995-08-05

EARLIER FILING DATE: 1995-08-05

EARLIER FILING DATE: 1995-08-05

EARLIER FILING DATE: 1995-08-04

EARLIER FILING DATE: 1995-08-04
                                                                                                                           RESULT 5
US-10-636-065-225
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; Sequence 10, Application US/09201936
; Publication No. US20020187946A1
                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-201-936-10
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-974-592-10
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Sequence 225, Application US/10636065
Publication No. US20040127694A1
GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local Similarity
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SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                                                          Score 386; DB >;
Pred. No. 1e-38;
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1996-02-04
PRIOR PPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR PILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-12-22
PRIOR FILING DATE: 1995-10-08/511,485
PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
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US-10-600-272-10
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; ORGANISM: Mus musculus
US-10-636-065-225
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Publication No. US20040157232A1
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LENGTH: 496
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TITLE OF INVENTION: Antisense IAP Nucleic Acids and Uses
TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025005
CURRENT APPLICATION NUMBER: US/10/636,065
CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR FILING DATE: 2000-09-28
NUMBER OF SEQ ID NOS: 231
SOFTWARE: FASTESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                    LENGTH: 496
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324
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                                                                                                                                                                           66;
                                         61 PGCKYL 66
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PGCKYL 329
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                                                                                                                                                                           Conservative
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                                                                                                                                                                      100.0%; Score 386; DB 16;
100.0%; Pred. No. 1e-38;
tive 0; Mismatches 0;
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RESULT 7

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CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 25
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Publication No. US20040254136A1
GENERAL INFORMATION:
APPLICANT: The Trustees of Columbia University in TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES ANIFILE REFERENCE: 0575/64078-A-PCT/JPW/ANX
CURRENT APPLICATION NUMBER: US/10/482,952
CURRENT FILING DATE: 2004-01-05
NUMBER OF SEQ ID NOS: 22
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; TYPE: PRT
; ORGANISM: human
US-10-482-952-5
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                                                                                                                                                                    Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                        LENGTH: 66
TYPE: PRT
                                                                                                                                                    Local
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61
                                61 PGCKYL 66
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                                                                                         1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWDQHAKCY
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95.5%;
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Pred. No. 3.4e-37;
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Pred. No. 5.3e-37;
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AND RELATED METHODS FOR REGULATING CELI
                                                                                                                                                                    Length 66;
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US-09-965-967-20
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US-10-600-272-25
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CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR PILING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR FILING DATE: 1995-08-04
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SEQ ID NO 20
LENGTH: 107
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                                                                                                          Query Match 94.8%;
Best Local Similarity 95.5%;
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LENGTH: 66
                                                                                            Matches
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Best Local (
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                                                                                                                                                                                                                                                                                                               APPLICANT: Shi, Yigong
TITLE OF INVENTION: Compositions And Methods For Regulating Apoptosis FILE REFERENCE: PU-0031 (01-1739-1)
CURRENT EPPLICATION NUMBER: US/09/965,967
CURRENT FILING DATE: 2001-09-28
PRIOR APPLICATION NUMBER: 60/236,574
PRIOR FILING DATE: 2000-09-29
PRIOR FILING DATE: 2000-09-29
PRIOR FILING DATE: 2000-12-20
PRIOR FILING DATE: 2000-12-20
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APPLICANT: MacKenzie, Alexand
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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TITLE OP INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OP INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
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l Similarity 95.5%;
63; Conservative
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YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                     YEARIVIFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
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Baird, Stephen
                                                                                          Conservative
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                                                                                     Score 366; DB 9; Length 107; Pred. No. 5.7e-37; Indels 1; Mismatches 2; Indels
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US-09-964-899-39
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Patent No. US20020174446A1
GENERAL INFORMATION:
APPLICANT: Cohen, Dalia et al.
TITLE OF INVENTION: Identification of Genes Involved in
TITLE OF INVENTION: Alzheimer's Disease Using Drosophila Melanogaster
FILE REFERENCE: 4-31612 A
CURRENT APPLICATION NUMBER: US/09/964,899
CURRENT APPLICATION NUMBER: 60/236,893
PRIOR APPLICATION UNMBER: 60/236,893
PRIOR FILING DATE: 2000-09-29
PRIOR FILING DATE: 2000-09-29
                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/298,309
PRIOR FILING DATE: 2001-06-14
NUMBER OF SEQ ID NOS: 53
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 39
LENGTH: 278
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CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: 09/239,867
PRIOR FILING DATE: 1999-01-29
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 10
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 236
                                                                                                                                         Query Match
Best Local Similarity
Matches 63; Conserv
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APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING
TITLE OF INVENTION: MALE FERTILITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/10024433 Publication No. US20020086409A1
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                                                                                                                                                                                                                                              LENGTH: 27
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
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106
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PGCKYL 111
                                 PGCKYL 66
                                                                    YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 105
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                                                                                                                                                        94.8%;
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Pred. No. 1.3e-36;
"" wismatches 2;
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Pred. No. 1.6e-36;
                                                                                                                                         Mismatches
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                                                                                                                                                                         Length 278;
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RESULT 13 US-09-974-592-4

GENERAL INFORMATION:

Sequence 4, Application US/09974592 Patent No. US20020120121A1

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PRIOR APPLICATION NUMBER: US 09/617,053
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOPTWARE: FASUSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 497
TYPE: PRT
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LENGTH: 497
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-201-936-4
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                                                                                        NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
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Best Local Similarity
                                                                                                                                                                                                                                                                TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PR.
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: PCT/1896/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
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APPLICANT: Tsang, Benjamin K
APPLICANT: Trang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MODULATION OF
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND
TITLE OF INVENTION: DISEASE
FILE REFERENCE: 07891/099004
CURRENT APPLICATION NUMBER: US/09/974,592
CURRENT FILING DATE: 2001-10-09
                                                                                                                                                                   EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER PPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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APPLICANT: MacKenzie, Alexander E
APPLICANT: Liston, Peter
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APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Haird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OF INVENTION: Antisense IAP Nucleic Acids and Uses
TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025005
CURRENT APPLICATION NUMBER: US/10/636,065
CURRENT APPLICATION NUMBER: 2003-08-07
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR APPLICATION NUMBER: 09/672,717
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; ORGANISM: Homo sapiens
US-10-636-065-219
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TITLE OF INVENTION: Methods for Determining the Prognosis
TITLE OF INVENTION: for Patients with a Prostate Neoplastic Condition
TITLE OF INVENTION: for Patients with a Prostate Neoplastic Condition
TILE REFERENCE: P-LJ 5659
CURRENT FILING DATE: 2003-02-12
PRIOR APPLICATION NUMBER: US 60/356,956
PRIOR APPLICATION NUMBER: US 60/356,956
PRIOR FILING DATE: 2002-02-12
NUMBER OF SEQ ID NOS: 6
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 26
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Best Local S
Matches 63
                                  NUMBER OF SEQ ID NOS: 231

SOFTWARE: FRANCEQ for Windows Version 4.0
SEQ ID NO 219

LENGTH: 497

TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 219, Application US/10636065
Publication No. US20040127694A1
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Best Local
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ORGANISM: Homo sapiens
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Pred. No. 2.9e-36;
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Pred. No. 2.9e-36;
1; Mismatches 2
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Sequence 2, Application US/10024433

Publication No. US20020086409A1

GENERAL INFORMATION:
APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING
TITLE OF INVENTION: MALE PERTILITY
FILE REFERENCE: 07891/01802

CURRENT APPLICATION NUMBER: US/10/024,433

CURRENT APPLICATION NUMBER: US/10/024,433

CURRENT FILING DATE: 2001-12-18

PRIOR APPLICATION NUMBER: 09/239,867

PRIOR FILING DATE: 1999-01-29

NUMBER OF SEQ ID NOS: 10

SOFTWARE: FastSEQ for Windows Version 4.0
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CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR FILING DATE: 1995-12-22
PRIOR FILING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
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LENGTH: 497
TYPE: PRT
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Best Local S
SEQ ID NO 2
LENGTH: 236
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAWILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                            325 PGCKYL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 PGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94.8%;
95.5%;
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Pred. No. 2.9e-36;
1; Mismatches 2;
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Pred. No. 2.9e-36;
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CURRENT APPLICATION NUMBER: US/10/343,115
CURRENT FILING DATE: 2003-09-17
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 464
TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-138-618-28
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Publication No. US20030100525A1
GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Merck Patent GmbH
TITLE OF INVENTION: Novel inhibitor of apoptosis protein
FILE REFERENCE: IAPL-7BHWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
             COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                       APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232 YEARLITFGTWMYSVNKEQLARAGFYAIGQEDKVQCFHCGGGLANWKPKEDPWEQHAKWY 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              292 PGCKYL 297
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                                                                                                                                                            STATE: D.C.
COUNTRY: USA
ZIP: 20036-5869
                                                                                                                                                                                                                CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PGCKYL
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Pred. No. 1.1e-32;
8; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 334; DB 15; Length 464; Pred. No. 2.3e-32;
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RESULT 21
US-10-138-618-29
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Sequence 29, Application US/0030100525A1
Publication No. US20030100525A1
GENERAL INFORMATION:
APPLICANT: Altieri, Dario C.
APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODUL!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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SEQUENCE CHARACTERISTICS:
                                                                                                  INFORMATION FOR SEQ ID NO: 29: SEQUENCE CHARACTERISTICS:
                                                                                                                                                           APPLICATION NUMBER: US 08/975,080
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022
TELEPHONE: 202-467-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/10/138,618 FILING DATE: 06-May-2002 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 202-467-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE DESCRIPTION: SEQ ID NO: 28:
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27 ALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 20036-5869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/975,080 FILING DATE: 20-NOV-1997 APPLICATION NUMBER: US 60/031,435 FILING DATE: 20-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Adler, Reid G. REGISTRATION NUMBER: 30,988
                                     TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPAX: 202-467-7176
                                                                                                                                            TELEFAX: 202-467-7176
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                                                                                ENGTH: 50 amino acids
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95.0%;
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Pred. No. 5.7e-21;
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                                                                                                                                                                                                           044574-5022-01-WO
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; MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-138-618-32
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US-10-138-618-32
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                                                                  Query Match
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                                                                 Matches
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GENERAL INFORMATION: Dario C.
APPLICANT: Altieri, Dario C.
APPLICANT: ANTION: SURVIVIN,
                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 60/031,435
PILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENETIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                 27 ALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 ALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL
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ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
                                                                                                                                                                                                     STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/975,080 FILING DATE: 20-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: D.C
                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                    LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                                    TELEPHONE: 202-467-7000
TELEFAX: 202-467-7176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 20036-5869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TY: Washington
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                                                                 Conservative
                                                                               60.4%;
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Pred. No. 5.7e-21;
1; Mismatches 1;
                                                                                Score 233; DB 14;
Pred. No. 5.7e-21;
                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                         044574-5022-01-WO
                                                                                                                                                   32:
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                                                                                                Length 50;
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                                                                  Indels
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RESULT 23 US-09-201-936-26

Sequence 26, Application US/09201936 Publication No. US20020187946A1 GENERAL INFORMATION:

APPLICANT: Korneluk,

APPLICANT: MacKenzie, Alexander

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PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR PILING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: BAIRd, Stephen

APPLICANT: Liston, Peter

ITITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,

ITITLE OF INVENTION: PROBES, AND DETECTION METHODS

FILE REFERENCE: 07891/003003

CURRENT APPLICATION NUMBER: US/09/201,936

CURRENT FILING DATE: 1998-12-01

EARLIER APPLICATION NUMBER: PCT/1896/01022

EARLIER APPLICATION NUMBER: PCT/1896/01022

EARLIER APPLICATION NUMBER: 08/51,956

EARLIER APPLICATION NUMBER: 08/576,956

EARLIER APPLICATION NUMBER: 08/576,956

EARLIER APPLICATION NUMBER: 08/511,485

EARLIER FILING DATE: 1995-08-04

NUMBER: 08/511,485

EARLIER FILING DATE: 1995-08-04
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US-10-600-272-26
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                                                 Query Match
Best Local Similarity 55.9
Conservative
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SOFTWARE: FRATSEQ for Windows Version 3.0
SEQ ID NO 26
LENGTH: 68
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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                                                                                                                                                                                               LENGTH: 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Korneluk, Robert G
                                                                                                                                                                        ORGANISM: Homo sapiens
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38;
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                                                                                 51.3%;
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                                                              Score 198; DB 16;
Pred. No. 1.6e-16;
6; Mismatches 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 198; DB 9;
Pred. No. 1.6e-16;
6; Mismatches 22
                                                                  22;
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                                                                                                       Length
                                                                Indels
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; LENGTH: 557
; TYPE: PRT
; ORGANISM: human
US-10-482-952-9
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US-10-482-952-9
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                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 604
                                                              Matches
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APPLICANT: The Trustees of Columbia University in the City of New York, et al.
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES AND RELATED METHODS FOR REGULATING CELL
FILE REFERENCE: 0575/64078-A-PCT/JPW/ANX
CURRENT APPLICATION NUMBER: US/10/482,952
CURRENT FILING DATE: 2004-01-05
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin version 3.1
SEQ ID NO 9
                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6, Application US/09974592
Patent No. US20020120121A1
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Best Local Similarity
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                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/974,592
CURRENT FILING DATE: 2001-10-09
PRIOR APPLICATION NUMBER: US 09/617,053
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Trang, Benjamin K
APPLICANT: Pratt, Christeine
TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
TITLE OF INVENTION: DISEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, R
APPLICANT: MacKenzie,
                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 07891/009004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              315 WFPRCEYL 322
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59 СҮРССКҮГ 66
38;
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                                                              Conservative
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                                                                                51.3%;
55.9%;
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                                                            6;
                                                      Score 198; Db >, -
Pred. No. 1.7e-15;
"" ematches 22;
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Pred. No. 1.5e-15;
6; Mismatches 22;
                                                                                                Length 604;
                                                            Indels
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                                                          Gaps
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APPLICANT: BAIRD, Stephen

APPLICANT: Liston, Peter

TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,

TITLE OF INVENTION: PROBES, AND DETECTION METHODS

FILE REFERENCE: 07891/003003

CURRENT APPLICATION NUMBER: US/09/201,936

CURRENT FILING DATE: 1998-12-01

EARLIER APPLICATION NUMBER: 09/011,356

EARLIER APPLICATION NUMBER: PCT/IB96/01022

EARLIER APPLICATION NUMBER: PCT/IB96/01022

EARLIER APPLICATION NUMBER: D8/576,956

EARLIER APPLICATION NUMBER: 08/576,956

EARLIER APPLICATION NUMBER: 08/571,485

EARLIER APPLICATION NUMBER: 08/511,485
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US-10-232-286-4
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                                                                                                                                                                                                                                Sequence 4, Application US/10232286

Publication No. US20030143579A1

GENERAL INFORMATION:

GENERAL INFORMATION:

GENERAL INFORMATION:

GEOGRAPHICANT: Rothe, Mike
GEOGRAPHICANT: Rothe, Mike
GEOGRAPHICANT: HAIBITORS OF APOPTOSIS

NUMBER OF SEQUENCES: 14

CORRESPONDENCE ADDRESS:

ADDRESSEE: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT
STREET: 4 Embarcadero Center, Suite 3400

CITY: San Francisco

STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
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Local Similarity 55.9%;
                        ZIP: 94111
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTMARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255 HAARFKTFFNWPSSVLVNPEQLASÄGFYYVGNSDDVKCFCCDGGLRCWESGDDFWVQHAK 314
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APPLICATION NUMBER: US/10/232,286
                                                                                                                                                                                                            COUNTRY: USA
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                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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APPLICANT: Reed, Jo
                                                                                                                                                   Matches
                                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/141,618
CURRENT FILING DATE: 2002-05-07
PRIOR APPLICATION NUMBER: US 60/289,233
PRIOR FILING DATE: 2001-05-07
PRIOR APPLICATION NUMBER: US 60/356,934
PRIOR FILING DATE: 2002-02-12
                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 09/388,221 PRIOR FILING DATE: 1999-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: P-LJ 5254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Methods For Determining the Prognosis TITLE OF INVENTION: For Cancer Patients Using Tucan
                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                   LENGTH: 604
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INFORMATION FOR SEQ ID NO: 4:
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                                                                                                                                                                     Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Brezner, David J.
REGISTRATION NUMBER: 24,774
REFERENCE/DOCKET NUMBER: A-62464/DJB
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/569,749
FILING DATE: <Unknown>
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315 WFPRCEYL 322
                                                                     255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                315 WFPRCEYL 322
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                                   59 CYPGCKYL 66
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                                                                                               1 YEARIVTEGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
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                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 30-Aug-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (415)781-1989
                                                                                                                                                   Conservative
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Pred. No. 1.7e-15;
6; Mismatches 22;
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Pred. No. 1.7e-15;
6; Mismatches 22;
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APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
ITILE OF INVENTION: Antisense IAP Nucleic Acids and
ITILE OF INVENTION: Thereof
FILE REFERENCE: 07891/025005
CURRENT APPLICATION NUMBER: US/10/636,065
CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR FILING DATE: 2000-09-28
NUMBER OF SEQ ID NOS: 231
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 221
LENGTH: 604
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; SOFTWARE: FRSTSEQ for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 604
; TYPE: PRT
; ORGANIZM: Homo sapiens
US-10-366-307-6
                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-10-636-065-221
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                                                                                                                                                                               Matches
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Best Local Similarity
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Publication No. US20030224399A1
GENERAL INFORMATION:
APPLICANT: Reed, John C.
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TITLE OF INVENTION: for Patients with a Prostate Neoplastic Condition
FILE REFERENCE: P-LJ 5659
CURRENT APPLICATION NUMBER: US/10/366,307
CURRENT FILING DATE: 2003-02-12
PRIOR APPLICATION NUMBER: US 60/356,956
PRIOR FILING DATE: 2002-02-12
                                                                                                                                                                                                                                                                                                                TYPE: PRT
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315 WFPRCEYL 322
                                                                                    255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
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                                       59 CYPGCKYL 66
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                                                                                                                         1 YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
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55.9%;
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Pred. No. 1.7e-15;
6; Mismatches 22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 79, Application US/10730476A
Publication No. US20040171105A1
GENERAL INFORMATION:
APPLICANT: Du, Chunying
APPLICANT: Yang, Ciheng
TITLE OF INVENTION: Method and Composition for Cleaving IAP8
FILE REFERENCE: 40716(IF-022)
CURRENT APPLICATION NUMBER: US/10/730,476A
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CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILLING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILLING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR FILLING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR FILLING DATE: 1995-08-04
                                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE: 2003-12-0
NUMBER OF SEQ ID NOS: 83
SOFTWARE: PatentIn version 3.2
SEQ ID NO 79
LENGTH: 604
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 604
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APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander
APPLICANT: Baird, Stephen
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Best Local Similarity
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRII
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                    Local
315 WFPRCEYL 322
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                                                                                       255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
                                           59 CYPGCKYL 66
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                                                                                                                 1 YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
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                                                                                                                                                                                                    Similarity
                                                                                                                                                                               Conservative
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                                                                                                                                                                          Score 198; DB 16;
Pred. No. 1.7e-15;
6; Mismatches 22;
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Pred. No. 1.7e-15;
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PRIOR FILLING DATE: 1999-12-08
PRIOR APPLICATION NUMBER: 60/134,416
PRIOR FILLING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 09/087,195
PRIOR FILLING DATE: 1998-05-29
PRIOR PILLING DATE: 1998-05-29
PRIOR PILLING DATE: 1998-01-26
PRIOR FILLING DATE: 1995-01-26
PRIOR APPLICATION NUMBER: 08/250,478
PRIOR APPLICATION NUMBER: 08/250,478
PRIOR FILLING DATE: 1994-05-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/10934717
Publication No. US20050037416A1
GENERAL INFORMATION:
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APPLICANT: 3921-1-1-1

TITLE OF INVENTION: VIRAL VECTORS ENCODING APOPTOSIS-INDUCING PROTEINS AND TITLE OF INVENTION: METHODS FOR MAKING AND USING THE SAME FILE REFERENCE: 3921-1-1-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 40, Application US/10825282
Publication No. US20040224389A1
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SOFTWARE: PatentIn Ver. 2.0
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CURRENT FILING DATE: 2004-04-14
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TYPE: PRT
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Local Similarity 55.9%;
                                                                                                                                                                                                    ZIP: 94111

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTMARE: PATENTIAL PC-DOS/MS-DOS

SOFTMARE: PATENTIAL PC-DOS/MS-DOS

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goeddel, David V
TITLE OF INVENTION: INHIBITORS OF APOPTOSIS
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT
                  APPLICATION NUMBER: US/10/934,717
FILING DATE: 03-Sep-2004
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/10/232,286
FILING DATE: 30-Aug-2002
APPLICATION NUMBER: US/08/569,749
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315 WFPRCEYL 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        255 HAARFKTFFNWPSSVLVNPEQLASÄGFYYVGNSDDVKCFCCDGGLRCWESGDDFWVQHAK 314
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                                                                                                                                                                                                                                                                                                                                                                                                             CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 4 Embarcadero Center, Suite 3400
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
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Pred. No. 1.7e-15;
6; Mismatches 22;
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; Sequence 28, Application US/09201936; Publication No. US20020187946A1; GENERAL INFORMATION:
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                                                                               RESULT 37
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                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 38
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SEQ ID NO 8
LENGTH: 1140
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Publication No. US20030176682A1
GENERAL INFORMATION:
APPLICANT: Vlaams Interuniversitair Instituut voor Biotechnol
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PRIOR PELICATION NUMBER: 60/138,834
PRIOR FILING DATE: 1999-06-09
NUMBER OF SEQ ID NOS: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/353,461
CURRENT FILING DATE: 2003-01-26
PRIOR APPLICATION NUMBER: US/09/579,692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Molecular characterisation of chromosome translocation TITLE OF INVENTION: t(11;18) (q21;q21) and its correlation to TITLE OF INVENTION: carcinogenesis FILE REFERENCE: PMA/MALT/V043
                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Brezner, David J.
REGISTRATION NUMBER: 24,774
REFERENCE/DOCKET NUMBER: A-62464/DJB
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415)781-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                          315 WFPRCEYL 322
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(415)398-3249
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Pred. No. 3.3e-15;
6; Mismatches 22;
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Pred. No. 1.7e-15;
6; Mismatches 22;
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APPLICANT: Korneluk, Robert G.

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US-09-201-936-28
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CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION STANDER: 08/511,485
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 28
LENGTH: 68
TYPE: PRT
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Best Local (
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                                                                                                                                                                         Matches
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APPLICANT: REED, JOHN C.
APPLICANT: DEVERAUX, QUINN L.
APPLICANT: MAEDA, SUSUMU
TITLE OF INVENTION: INHIBITOR OF APOPTOSIS PROTEINS AND NUCLEIC ACIDS FITTE OF INVENTION: METHODS FOR MAKING AND USING THEM
FILE REFERENCE: 087102/027 2537
CURRENT APPLICATION NUMBER: US/10/041,859
CURRENT FILING DATE: 2002-01-07
                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/260,478
PRIOR FILING DATE: 2001-01-08
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.1
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                                                                                                                                                                                                                                                                  LENGTH: 68
TYPE: PRT
ORGANISM: Orgyia pseudotsugata
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APPLICANT: Baird, Stephen
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63 DRCEYV 68
                                        61 PGCKYL 66
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                                                                                                                                                                                           Similarity
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                                                                                                      ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
                                                                                ARLRTFAEWPRGLKQRPEELAEAGFFYTGQGDKTRCFCCDGGLKDWEPDDAPWQQHARWY
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                                                                                                                                                                  49.2%; Score 190; DB 14;
48.5%; Pred. No. 1.6e-15;
tive 12; Mismatches 20;
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48.5%; Pred. No. 1.6e-15;
Five 12; Mismatches 20;
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PRIOR APPLICATION NUMBER: 60/260,478
PRIOR FILING DATE: 2001-01-08
PRIOR FILING DATE: 2001-01-08
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 12
LENGTH: 172
TYPE: PRT
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CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR APPLICATION NUMBER: US 08/571,485
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                                               Matches
                                                                   Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 12, Application US/10041859 Publication No. US20030049796A1
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SEQ ID NO 28
LENGTH: 68
TYPE: PRT
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Best Local 8
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                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: INHIBITOR OF APOPTOSIS PROTEINS AND NUCLEIC ACIDS TITLE OF INVENTION: METHODS FOR MAKING AND USING THEM FILE REFERENCE: 087102/027 2537
CURRENT APPLICATION NUMBER: US/10/041,859
CURRENT FILING DATE: 2002-01-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: HUANG, QIHONG
APPLICANT: REED, JOHN C.
APPLICANT: DEVERAUX, QUINN L.
APPLICANT: MAEDA, SUSUMU
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NUMBER OF SEQ ID NOS: 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Baird, S
APPLICANT: Liston,
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                                                                                                                                                         ORGANISM: Orgyia pseudotsugata
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ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
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No. US20040157232A1
                                             Conservative
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48.5%; Pred. No. 1.6e-15;
ative 12; Mismatches 20;
                                        49.2%; Score 190; DB 14;
48.5%; Pred. No. 4.2e-15;
tive 12; Mismatches 20;
                                                                                 Length 172;
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Maximum Match 100%
Listing first 45 summaries
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pIR_79:*
1: pir1:*
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3: pir3:*
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386
1 YEARIVTFGTWIYS
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(without alignments)
270.226 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

,	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	თ	Çī	4	w	N	ш	No.	Result
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	RNA-2 polyprotein	hypothetical prote	nicotinic acetylch	hypothetical prote	SalF17R protein -	A55R protein - vac	ORF MSV242 probabl	cut17 protein - fi	inhibi	apoptosis inhibito	íp	IAP1 orf27 - Bomby	ir		MSV248	3-1	probable apoptosis		Ě	neuronal apoptosis	neuronal apoptosis	inhibitor-of-apopt	kidney inhibitor o	apoptosis inhibito	apoptosis-inhibiti	inhibitor of apopt	apoptosis inhibito		apoptosis inhibito	Description	

R;Liston, P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird,

S.; Cherton-Horvat, G.;

Farahani,

ALIGNMENTS

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C; Genetics:
A; Gene: ilp
C; Function:
                                                                                                                                                                                            RESULT 2
S68449
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C;Superfamily: apoptosis inhibitor IAP homolog; RING finger homology
C;Keywords: apoptosis; zinc finger
F;446-490/Domain: RING finger homology <RRN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    apoptosis inhibitor IAP homolog - human (Species: Homo sapiens (man) (C;Species: Homo sapiens (man) (C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004 (C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004 (C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004 (C;Date: 06-Dec-1996 #sequence_revision: S69544; S68451 (Clem, R.J.; van Dongen, J.L.; Gilfillan, M.C BMBO J. 15, 2685-2694, 1996 (BMBO J. 15, 2685-2694, 1996 (BMBO J. 15, 2685-2694; MUID:96256286; PMID:8654366 (A;Reference number: S69544; MUID:96256286; PMID:8654366 (A;Reference number: S69544) (MUID:96256286; PMID:86544) (MUID:96256286; PMID:86544) (MUID:96256286; PMID:865446) (MUID:96256286; PMID:865446) (MUID:96256286) (MUID:962562
apoptosis inhibitor hiap-1 - human (;Species: Homo sapiens (man) (C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004 C;Accession: S68449
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A; Residues: 1-161,'C',163-422,'Q',424-497 <LIS>
A; Cross_references: EMBL:U45880; NID:g1184319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP
A;Reference number: A58182; MUID:96149249; PMID:8552191
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: mRNA
A;Residues: 1-497 <DUC>
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Best Local :
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95.5%;
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Pred. No. 2e-33;
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inhibitor of apoptosis protein 3 - Orgyia pseudotsugata nuclear polyhedrosis virus C.Species: Orgyia pseudotsugata nuclear polyhedrosis virus, OpMNPV C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 15-Sep-2000 C;Accession: T10304
R.Ahrens, C.A.; Russell, R.R.; Funk, C.J.; Evans, J.; Harwood, S.; Rohrmann, G.F. Virology 229, 381-399, 1997
A;Title: The sequence of the Orgyia pseudotsugata multinucleocapsid nuclear polyhed A;Reference number: Z17011; MUID:97271300; PMID:9126251
A;Accession: T10304
A,Scatus: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A,Residues: 1-268 cAHR>
A,Residues: 1-268 cAHR>
A,Residues: 1-268 cAHR>
A;Cross-references: EMBL:U75930; NID:g2934903; PIDN:AAC59034.1; PID:g1911281
C;Superfamily: viral apoptosis inhibitor IAP; RING finger homology
F;217-261/Domain: RING finger homology <RRN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-358 <STE>
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C;Species: Sus scrofa domestica (domestic pig)
C;Date: 04-Sep-1998 #sequence_revision 04-Sep-1998 #text_change 09-Jul-2004
C;Accession: JC5964
R;Stehlik, C.; de Martin, R.; Binder, B.R.; Lipp. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Stehlik, C.; de Martin, R.; Binder, B.R.; Lipp, J. Biochem. Biophys. Res. Commun. 243, 827-832, 1998 A;Title: Cytokine induced expression of porcine inhibitor A;Reference number: JC5964; MUID:98162622; PMID:9501011 A;Accession: JC5964
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JC5964
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A;Cross-references: UNIPROT:Q13489;
C;Function:
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C;Keywords: apoptosis; zinc finger
F;553-597/Domain: RING finger homology <RNG>
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A; Title: Suppression of a
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Best Local S
Matches 37
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YAARFKTFCNWPSSIPVHPEQLASAGFYYMGHSDDVKCFCCDGGLRCWESGDDPWVEHAK
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Pred. No. 1.9e-14;
7; Mismatches 22
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Pred. No. 1.8e-14;
"'amatches 22;
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C;Species: Homo sapiens (man)
C;Date: 17-Uul-1998 #sequence revision 17-Uul-1998 #text_change 09-Jul-2004
C;Accession: $68450
R;Liston, P; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, (Nature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and a related fa;Reference number: A58182; MUID:96149249; PMID:8552191
A;Accession: $68450
A;Status: nucleic acid sequence not shown
A;Residues: 1-618 <LIS>
A;Residues: 1-618 <LIS
A;Residues: 1-618 
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S68450
ş
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                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:Q13490; EMBL:U45879; NID:g1184317; C;Function:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               apoptosis-inhibiting protein - Orgyia pseudotsugata multicapsid nuclear polyhedrosis C;Species: Orgyia pseudotsugata multicapsid nuclear polyhedrosis virus, OpMNPV C;Date: 15-Oct-1994 #sequence_revision 15-Oct-1994 #text_change 09-Jul-2004 C;Accession: A53989 R;Birnbaum, M.J.; Clem, R.J.; Miller, L.K. J. Virol. 68, 2521-2528, 1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-268 <BIR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A53989
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                                                                              Query Match
Best Local S
Matches 35
                                                                                                                                                                                                              Reywords: apoptosis; zinc finger
567-611/Domain: RING finger homology <RNG>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 PGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKFGEDFWDQHAKCY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 ARIVTEGTWIYSVNK--EQLARAGEYALGEGDKVKCFHCGGGLIDWKPSEDPWDQHAKCY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32;
                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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              YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ARLRTFAEWPRGLKQRPEELAEAGFFYTGQGDKTRCFCCDGGLKDWEPDDAPWQQHARWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ARLRTFAEWPRGLKQRPEELAEAGFFYTGQGDKTRCFCCDGGLKDWEPDDAPWQQHARWY 172
                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66
                                                                                                              47.7%;
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                                                                              9;
                                                                              Score 184; DB 2
Pred. No. 7e-13;
9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 190; DB 2;
Pred. No. 6.7e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 190; DB 2;
Pred. No. 6.7e-14;
2; Mismatches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a nuclear polyhedrosis virus PMID:8139034
                                                                                                                                                 2
                                                                              22;
                                                                                                                                                 Length
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                                                                                 Indels
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                                                                                                                                                 618;
                                                                                                                                                                                                                                                                                                                                                        PIDN: AAC50372.1;
                                                                              Gaps
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269

HAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFGCDGGLRCWESGDDPWVEHAK

328

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inhibitor-of-apoptosis polypeptide (IAP) - Cydia pomonella granulosis virus CpGV C;Species: Cydia pomonella granulosis virus CpGV C;Species: Cydia pomonella granulosis virus CpGV C;Date: 21-8ep-1993 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004 C;Accession: A45679 R;Crook, N.E.; Clem, R.J.; Miller, L.K. J. Virol. 67, 2168-2174, 1993 J. Virol. 67, 2168-2174, 1993 A;Title: An apoptosis-inhibiting baculovirus gene with a zinc finger-like motif. A;Accession: A45679; MUID:93188168; PMID:8445726 A;Accession: A45679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             kidney inhibitor of apoptosis protein - human
(;Speciles: Homo sapiens (man)
(;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004
(;Accession: JC7568
R;Lin, J.H.; Deng, G.; Huang, Q.; Morser, J.
Biochem. Biophys. Res. Commun. 279, 820-831, 2000
Biochem. Biophys. Res. Commun. 279, 820-831, 2000
A;Title: KIAP, a novel member of the inhibitor of apoptosis protein family.
A;Reference number: JC7568; MUID: 21092523; PMID:11162435
A;Contents: Fetal kidney
                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:P41436; GB:L05494; NID:g289583; PIDN:AAA43835.1; PID:g289584
A;Note: sequence extracted from NCBI backbone (NCBIN:127014, NCBIP:127015)
C;Superfamily: viral apoptosis inhibitor IAP; RING finger homology
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A;Residues: 1-298 <LIN>
A;Crose-references: UNIPROT:096CA5
C;Comment: This protein, a new meml
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A; Residues: 1-275 < CRO>
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Map position: 20q13.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: kiap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: JC7568
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Best Local
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                                                                                                                                                                                                                                                                                        Local Similarity
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                                                                       170
                                                                                                                    61 PGCKYL 66
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                                                                     DRCAYV 175
                                                                                                                                                                 ARVKSFHNWPRCMKORPEOMADAGFFYTGYGDNTKCFYCDGGLKDWEPEDVPWEOHVRWF 169
                                                                                                                                                                                            ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ELRLASFYDWPLTAEVPPELLAAAGFFHTGHQDKVRCFFCYGGLQSWKRGDDPWTEHAKW 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARIVTEGTW--IYSVNKEQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPPRCEFL 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYPGCKYL
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                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                             13; Mismatches
                                                                                                                                                                                                                                              Score 175; DB 2; Lengtn 4...
Pred. No. 3.3e-12;
"'' marches 22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 177; DB 2;
Pred. No. 2.1e-12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inhibitor of apoptosis protein family, play
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2; Length 298;
                                                                                                                                                                                                                                                                                                       Length 275;
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                      RESULT
S68452
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A;Cross-references: UNIPROT:Q9QUK4; EMBL:AF102871; NID:g3860228; PID:g3860229; PIDN:AAC77
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Yaraghi, Z.; Diez, E.; Gros, P.; MacKenzie, A. Mamm. Genome 10, 761-763, 1999 A; Title: CDNA cloning and the 5'genomic organization of Naip2, a candidate gene for murir A;Title: CDNA cloning and the 5'genomic organization of Naip2, a candidate gene for murir A;Reference number: Z22179; MUID:99315342; PMID:10384056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Keywords: apoptosis; ATP; glycoprotein; nucleotide binding; P-loop; transmembrane prote; F;94-110/Domain: transmembrane #status predicted <TMM1> F;470-47/Region: nucleotide-binding motif A (P-loop) F;479-496/Domain: transmembrane #status predicted <TMM2> F;479-496/Domain: transmembrane #status predicted <TMM2> F;476/Binding site: ATP (Lys) #status predicted (Asn) (covalent) #status predicted
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A;Title: The gene for neuronal apoptosis inhibitory protein is partially deleted in indiv. A;Reference number: A55478; MUID:95112344; PMID:7813013
A;Accession: A55478.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neuronal apoptosis inhibitory protein 2 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 09-Jul-2004
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A;Cross-references: GDB:120378; OMIM:600354; OMIM:253300
A;Map position: 5q12.2-5q13
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C;Date: 05-Jan-1996 #sequence_revision 05-Jan-1996 #text_change 02-Feb-2001
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                                                                                                                                                                                                                                                                                                                                     A; Gene: Naip2
                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-1447 < YAR>
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A;Residues: 1-1232 <ROY>
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N;Alternate names: NAIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;Genetics:
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Best Local (
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Best Local Similarity
220 WFPKCEFL 227
                                                                                                                160 EARLESFEDWPFYAHGTSPRVLSAAGFVFTGKRDTVQCFSCGGCLGNWEEGDDPWKEHAK 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    160 EARLASFRNWPFYVQGISPCVLSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAK 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220 WFPKCEFL 227
                                                      59 CYPGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28;
                                                                                                                                                                                                                                                    Similarity
                                                                                                                                             EARIVTFGTW---IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                        41.6%; Score 160.5; DB
41.2%; Pred. No. 7e-10;
ative 14; Mismatches 2
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apoptosis inhibitor diap - fruit fly (Drosophila melanogaster)

11

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A;Molecule type: mRNA
A;Residues: 1-36,'AT',37,'K',39,'L',41-44,'H',46-58,'Q',60-412,'A',414-427,'A',429-496
A;Cross-references: EMBL:U45881; NID:g1184313; PIDN:AAC46988.1; PID:g1184314
C;Genetics:
A;Cross-references: PlyBase:FBgn0015247
C;Function:
C;Function: apoptotic suppressor
A;Description: apoptotic suppressor
C;Superfamily: apoptosis inhibitor IAP homolog; RING finger homology
C;Superfamily: apoptosis; zinc finger
C;Keywords: apoptosis; zinc finger
C;Keywords: apoptosis; zinc finger
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C;Date: 17
C;Accessic
R;Liston,
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                                                                                                                                                                                                                                                                                                                            A;Gene: ilp
C;Superfamily: ap
F;446-490/Domain:
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C;Species: Drosophila melanogaster
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S69545
R;Duckett, C.S.; Nava, V.E.; Gedrich, R.W.; Clem, R.J.; van Dongen, J.L.; Gilfilla
EMBO J. 15, 2685-2694, 1996
A;Title: A conserved family of cellular genes related to the baculovirus iap gene
A;Reference number: S69544; MUID:96256286; PMID:8654366
A;Accession: S69545
A;Accession: S69547; nucleic acid sequence not shown
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S69545
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A;Status: nucleic acid sequence
A;Molecule type: mRNA
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A;Title: Suppression of apoptosis in mammalian cells by NAIP
A;Reference number: A58182; MUID:96149249; PMID:8552191
                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references:
C;Genetics:
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A; Residues: 1-497 < DUC>
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A; Accession: $78528
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submitted to the EMBL Data
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A; Residues: 1-496 < LI
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Best Local S
Matches 28
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Best Local S
Matches 28
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Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                            DARLRTFTDWPISNIQPASALAQAGLYYQKIGDQVRCFHCNIGLRSWQKEDEPWFEHAKW 272
                                                     SPKCOFV
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                                                        279
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41.8%; Pred. No. 4.9e-09;
tive 12; Mismatches 25;
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Pred. No. 4.9e-09;
2; Mismatches 25
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2; Mismatches
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ORF MSV248 probable inhibitor of apoptosis protein (IAP) - Melanoplus sanguinipes (C;Species: Melanoplus sanguinipes entomopoxvirus
C;Species: Melanoplus sanguinipes entomopoxvirus
C;Apate: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004
C;Accession: T28409
R;Afonso, C.L.; Tulman, E.R.; Lu, Z.; Oma, E.; Kutish, G.F.; Rock, D.L.
J. Virol. 73, 533-552, 1999
A;Title: The genome of Melanoplus sanguinipes entomopoxvirus.
A;Reference number: Z20484; MUID:99102612; PMID:9847359
A;Accession: T28409
A;Accession: T28409
A;Status: preciminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Mesidues: 1-150 <AFO>
A;Cross-references: UNIPROT:Q9YVJ4; EMBL:AF063866; NID:g4049647; PIDN:AAC97724.1; EC;Genetics:
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T28409
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A;Molecule type: DNA
A;Residues: 1-275 <AHR>
A;Residues: 1-275 <AHR>
A;Cross-references: EMBL.U75930; NID:g2934903; PIDN:AAC59040.1; PID:g1911287
C;Superfamily: viral apoptosis inhibitor IAP; RING finger homology
F;223-268/Domain: RING finger homology <RRN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           probable apoptosis inhibitor - Chilo iridescent virus C;Species: Chilo iridescent virus C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #tc C;Accession: T03183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: The sequence of the Orgyia pseudotsugata multinucleocapsid A;Reference number: Z17011; MUID:97271300; PMID:9126251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        apoptosis-inhibiting protein 1 - Orgyia pseudotsugata nuclear polyhedrosis virus C;Species: Orgyia pseudotsugata nuclear polyhedrosis virus, OpMNPV C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 15-Sep-2000 C;Accession: T10310 C;Accession: T0310 R;Ahrens, C.A.; Russell, R.R.; Funk, C.J.; Evans, J.; Harwood, S.; Rohrmann, G.F Virology 229, 381-399, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: The DNA sequence of Chilo iridescent virus between A;Reference number: Z14834; MUID:98141693; PMID:9482589 A;Accession: T03183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: T10310
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A; Residues: 1-208 < BAH >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Bahr, U.; Tidona, C.A.; Darai, Virus Genes 15, 235-245, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary; translated
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Best Local S
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188
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                                                                                                                                                    3 ARIVTFGTWIYSVN--KEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
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                                                                                                                                                                                                                                  Similarity
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                                                PGCKYL 66
                                                                                                   ARRATEDHWPAALNALTHDIAEAGMFHTMLGDETACFFCDCRVRDWLFGDDFWQRHALAN 187
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POCYFV 193
                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                               33.2%; Score 128; DB 2; 36.4%; Pred. No. 6.4e-07;
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Pred. No. 1.7e-08;
                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nuclear polyhedrosis
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PID:g40

entomop

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A;Cross-references: UNIPROT:P41435; GB:S52569
R;Ayres, M.D.; Howard, S.C.; Kuzio, J.; Lopez-Ferber, M.; Possee, R.D.
Virology 202, 586-605, 1994
A;Title: The complete DNA sequence of Autographa californica nuclear polyhedrosis
A;Reference number: A72850; MUID:94303173; PMID:8030224
A;Accession: C72853
                                                                                                                                                                                                                                                                                                                                             A;Title: A giant ubiquitin-conjugating enzyme related to A;Reference number: Z20963; MUID:98292517; PMID:9628897 A;Accession: T31067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Mus musculus (house mouse)
C;Date: 22-Oct-1999 #sequence_revision 22-Oct-1999 #text_change 09-Jul-2004
C;Accession: T31067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-199,'L','201-286 <AYR>
A;Cross-references: GB:L22858; NID:g510708; PIDN:AAA66657.1;
                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-286 < BRA>
                                                                                                                                                                                                                                                                                          A;Reference number: A44221; MUID:93079853; PMID:1333113 A;Accession: D36828
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Hauser, H.P.; Bardroff, M.; Pyrowolakis, G.; Jentsch, J. Cell Biol. 141, 1415-1422, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Keywords: membrane-associated protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIR repeat containing ubiquitin-conjugating enzyme BRUCE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭉
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                                                                                                                                                                                                                                                                                                                                   VP8 of rotavirus.
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Residues: 1-4845 <HAU>;Residues: 1-4845 <HAU>;Cross-references: UNIPROT:088738; EMBL:Y17267; NID:g3319989; PIDN:CAA76720.1; PID:g33;Note: localized to the Golgi compartment and the vesicular system
                                                                                                                                                                                                                                                                         Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 29.7%;
l Similarity 31.3%;
21; Conservative 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPNCPFV 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TFTSWPHVGYRWAQPDPMAQAGFYHQPASSGDDRAMCFTCSVCLVCWEFTDEFWSEHERH 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QSRINSYENWPISLFFKINR--LCEAGFFYTNIGDITVCFNCGLKIKNWLYYNDFWIEHS 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Abeckar ee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TFGTWIYS----VNKEQLARAGEY---ALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KWSPNCNYI 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KCABCCKAT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.6%;
                                                                                                                                                                                                                                                                                                                                                   organization of the EcoRI-A fragment of Autographa californi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 114.5; DB 2;
; Pred. No. 0.00033;
14; Mismatches 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
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Pred. No. 6e-07;
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                                    PID:g559096
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submitted to the EMBL Data Library, January 1997 A;Description: C. elegans IAP homologue. A;Reference number: Z21708
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J. Gen. Virol. 80, 1323-1337, 1999
A;Title: Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus.
A;Reference number: Z22020; MUID:99281911; PMID:10355780
A;Accession: T41772
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T41772
                                                                                    A; Map position:
A; Introns: 41/3
                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-155 <WIL>
                                                                                                                                                                                                                                                                                              submitted to the EMBL Data Library, June 1996 A; Reference number: Z20025
                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-155 < URE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptosis inhibitor homolog T27F2.3 - Caenorhabditis elegans C;Species: Caenorhabditis elegans
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                                                                                                                                                                    A; Experimental source: clone
                                                                                                                                                                        A;Cross-references: EMBL:Z74045; NID:e1062212; PIDN:CAA98553.1; GSPDB:GN00023; CESP:T27F;
A;Experimental source: clone T27F2
                                                                                                                                                                                                                                                 A;Status: preliminary; translated
                                                                                                                                                                                                                                                                            A; Accession: T25380
                                                                                                                                                                                                                                                                                                                                             R;Lennard,
                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:092394; EMBL:L33180; NID:g3745835; PIDN:AAC63701.1; PID:g3745
A;Experimental source: isolate T3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-292 < KAM>
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                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q22837; EMBL:U85911; PIDN:AAB94330.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Species: Caenorhabditis elegans
Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change;
Accession: T37471; T25380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
;Accession: T41772
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                                                                                                                              T27F2.3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - Bombyx mori nuclear polyhedrosis virus (isolate Bombyx mori nuclear polyhedrosis virus, BmSNPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               isolate T3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20 LARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL 66
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. Similarity 23; Conserv
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Conservative
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38.3%;
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                   25.9%;
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Pred. No. 0.00012;
8; Mismatches 21;
Score 100; DB 2;
Pred. No. 0.00052;
3; Mismatches 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 106; DB 2;
Pred. No. 0.0002;
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                                          DB 2;
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                                       Length 155;
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A;Molecule type: DNA
A;Residues: 1-308 <WIL>
A;Cross-references: EMBL:277654; P
A;Experimental source: clone C50B8
C;Genetics:
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                                                                                                                                                                                                                                                                                                                         submitted to the EMBL Data Library, A;Reference number: Z19223 A;Accession: T20098
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A;Title: Sequence and analysis of the genome of a baculovirus pathogenic for Lymantria A;Reference number: Z20836; MUID:99124785; PMID:9887315
A;Accession: T30489
                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q18727; EMBL:U72208; PIDN:AAD00182.1 R;Percy, C.
                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: mRNAA;Residues: 1-308 <URE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      submitted to the EMBL Data Library, A;Reference number: Z21711 A;Accession: T37474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptosis inhibitor homolog C50B8.2 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 03-Dec_1999 #sequence_revision 03-Dec-1999 #text_charc.charcession: T37474; T20098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Uren,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
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                                                                                                                                            A;Introns: 48/3; 143/1; 191/3
                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:Q9YMI9; EMBL:AF081810; PIDN:AAC70325.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-155 < K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                Matches
                                                                                                                                                                                     Gene: C50B8.2
                                                                                                                                                                                                    Genetics:
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Best Local
                                                                                                                                                                 position: 5
                                                                                   Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
1-155 <KUZ>
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                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYP 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QHAKCYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLASFRNWSAVDAPAPAELAHAGFYCANRODFVKCAYCHIEIGNWSIGSDAMSDHKRYSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EHTKRDEPCEFV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YEARIVTFGTWIY-----SVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWD 54
                                                            24.1%;
ilarity 29.3%;
Conservative 2
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                                                            20;
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                                                                                                                                                                                                                                              PIDN: CAB01130.1;
                                                          Score 93; DB 2; Ler Pred. No. 0.0061; 0; Mismatches 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 99; DB 2;
Pred. No. 0.00067;
                                                                                                                                                                                                                                                                                                                                                                   July 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            September
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                              GSPDB:GN00023;
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                                                                                                Length 308
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                                                            Indels
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                                                          10;
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                                                          Gaps
                    51
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A;Accession: T28403
A;Status: preliminary; translated
A;Molecule type: DMA
A;Residues: 1-329 <AFO>
A;Cross-references: UNIPROT:Q9YVKO
C;Genetics:
                                                                                                                                     R;Afonso, C.L.; Tulman, E.R.; Lu, Z.; Oma, E.; Kutish, G.F.; J. Virol. 73, 533-552, 1999
A;Title: The genome of Melanoplus sanguinipes entomopoxvirus.
A;Reference number: Z20484; MUID:99102612; PMID:9847359
                                                                                                                                                                                                                                 ORF MSV242 probable inhibitor of apoptosis protein (IAP) - Melanoplus sanguinipes entomor C;Species: Melanoplus sanguinipes entomopoxvirus
C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004
C;Accession: T28403
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T28403
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:014064; EMBL:AB031034; PIDN:BAA83415.1 R;Harris, D.; Wood, V.; Rajandream, M.A.; Barrell, B.G. submitted to the EMBL Data Library, August 1998 A;Reference number: Z22007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Schizosaccharomyces pombe C;Date: 21-Jan-2000 #sequence revision 21-Jan-2000 C;Accession: T41523; T41649; T41700 R;Morishita, J.; Matsusaka, T.; Yanagida, M. submitted to the EMBL Data Library, August 1999 A;Description: #ission yeas cutl7 is required for A;Reference number: Z22536
                                                                                                                                                                                                                                                                                                                                                                                                                                     문
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A; Introns: 43/3
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A; Residues: 932-997
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A; Residues: 1-997 < HAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-997 < MOR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:AL031323; PIDN:CAA20434.1; GSPDB:GN00068;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50 EDPWDQHAKCYPGCKY 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22 YSKRLDTFOKKKWPRAKPTPETLATVGFYYNPISESNSEERLDNVTCYMCTKSFYDWEDD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                fission yeast (Schizosaccharomyces pombe)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                        UNIPROT: Q9YVK0; EMBL: AF063866; NID: g4049647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL:AL121859; PIDN:CAB58376.1; GSPDB:GN00068; SPDB:SPCP31B10.10c
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                           PIDN: AAC97721.1; PID: 94(
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C;Species.
C;Apecies.
C;Accession: JQ1792; C38550
C;Accession: JQ1792; C38550
R;Smith, G.L.; Chan, Y.S.; Howard, S.T.
J. Gen. Virol. 72, 1349-1376, 1991
J. Gen. Nucleotide sequence of 42kbp (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-564 <JOH>
A;Cross-references: UNIPROT:P21073
A;Cross-references: UNIPROT:P21073
C;Superfamily: uncharacterized conserved protein with kelch repeats, vaccinia F3L type;
F;7-110/Domain: POZ domain homology <POZ>
                                                                                                                                                                                A;Cross-references: UNIPROT:P24768; DDBJ:D11079; NID:g222717; A;Experimental source: strain WR R;Howard, S.T.; Chan, Y.S.; Smith, G.L. Virology 180, 633-647, 1991
A;Title: Vaccinia virus homologues of the shope fibroma virus A;Reference number: A38550; MUID:91111982; PMID:1846491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Reference number: A33172
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R;Johnson, G.P.
submitted to GenBank,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: vaccinia virus
A;Note: host Homo sapiens (man)
C;Date: 09-Nov-1990 #sequence_revision 09-Nov-1990 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                     A;Title: Nucleotide sequence of 42kbp of vaccinia virus strain WR A;Reference number: JQ1767; MUID:91259063; PMID:2045793
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SalF17R protein - vaccinia virus
N;Alternate names: SalF21R 64.7K protein
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                                                 C; Superfamily: uncharacterized conserved protein with kelch repeats, vaccinia F3L type; F;7-110/Domain: POZ domain homology <POZ>
                                                                               A;Cross-references: GB:M58052
A;Experimental source: strain WR
                                                                                                                    A; Molecule type: DNA
A; Residues: 1-564 < HOW>
                                                                                                                                                   A;Status: preliminary
                                                                                                                                                                   A; Accession: C38550
                                                                                                                                                                                                                                                                                       A;Residues: 1-564 <SMI>
                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                             /Species: vaccinia virus
/Date: 30-Sep_193 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004
Query Match
Best Local Similarity
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PSEDPWDQHAKC-YPGC 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SKVIAYNTCTNSWIYDIPELKYPRSNCGGLADDEYI---YCIGGIRDQDSSLTSSIDKWK 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PSKPYWQKYAKWREPKC 386
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20.9%;
24.7%;
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Score 80.5; DB Pred. No. 0.28;
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                 Length 564
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C; Superfamily:
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R;Bloecker, H.;
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A;Molecule type: mRNA
A;Residues: 1-187 <AAA>
A;Cross-references: UNIPROT:Q9NPW6; EMBL:AL359591
A;Experimental source: adult melanoma (MeWo cell line); clone DKFZp7620076
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A.Reference number: Z25143

A.Reference number: Z25143
                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated A;Molecule type: DNA A;Residues: 1-511 <FLE>
                                                                                                                                                                                                                                                                                                                                                                                                 R;Fleming, J.T.; Squire, M.D.; Barnes, T.M.; Tornoe, C.; Matsuda, K.; Ahnn, J.; Fire, J. Neurosci. 17, 5843-5857, 1997
A;Title: Caenorhabditis elegans levamisole resistance genes lev-1, unc-29 and unc-38 (A;Reference number: Z22588; MUID:97368239; PMID:9721782
A;Accession: T43634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nicotinic acetylcholine receptor alpha chain - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:Q23022; EMBL:X98599; PIDN:CAA67196.1
C;Genetics:
                                                                                                                                                                                                                                                                               A; Intron8: 43/2; 66/3; 118/2; 168/3; 248/3; 341/1; 484/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Species: Homo sapiens (man)
;Date: 21-Jul-2000 #sequence_revision 21-Jul-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53 RIINIGP-VMLISEEQPAQPALPIQPEGTRVVCGHCGNTFL-W--MELRENTLAKC-PHC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 RIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGC
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omo sapiens (man)
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IMSRVAKRRAKNYPSC
                                      ----QHAKCYPGC
                                                                              FGSWTFSENLLSVELNEPSLRYEEEIDEKGII-----DNVTVAEDGIDLSDYYPSVE-WD
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27.6%;
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Pred. No. 3.6;
9; Mismatches
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                                                                                                                                                                               Score 66;
Pred. No.
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                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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C;Keywords: polyprotein
F;233-737/Product: coat prote
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                                                                                                                                                                                                                                                                                                                                                                                         R;Bertioli, D.J.; Harris, R.D.; Edwards, M.L.; Cooper, J.I.; Hawes, W.S. J. Gen. Virol. 72, 1001-1809, 1991
A;Title: Transgenic plants and insect cells expressing the coat protein A;Reference number: PQ0219; MUID:91341466; PMID:1875193
A;Accession: PQ0219
A;Molecule type: genomic RNA
A;Residues: 1-737 <BER>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: arabis mosaic virus
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 09-Jul-2004
C;Accession: PQ0219; PQ0220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Map position: 1
A;Introns: 43/2; 66/3; 118/2; 168/3; 248/3; 271/3; 364/1; 507/3
C;Superfamily: acetylcholine receptor
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                                                                                                                                                                                                                                                                                                                                                                          A; Cross-references: UNIPROT: Q65028;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N; Contains: coat protein
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A;Experimental source: strain Bristol N2; clone F21F3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein F21F3.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Reference number: A; Accession: T25720
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
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;Accession: T25720
;Accession: T25720
;Geieel, C.; Kramer, J.; Elliott, G.
submitted to the EMBL Data Library, February 1997
submitted to the sequence of C. elegans cosmid F21F3.
                                                                                                                                                                                                                    233-737/Product: coat protein #status experimental <COA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gene: CESP:F21F3.5
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502 ĠĊ 503
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                                   62 GC 63
                                                                                                       12 IYSVNKEQLARAGFYALGEGDKVK-----CFHCGGGL----TDWKPSEDPWDQHAKCYP
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27.6%;
                                                                    -YYLGIGGVVKGKVHICSPCTYGIVLRVVSEWNGVTNNWNQLFK-YP
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Pred. No. 11;
9; Mismatches
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                                                                                                                                                                                 Score 65.5;
                                                                                                                                              Pred. No. 17;
8; Mismatches
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RESULT 32
S13720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vegetative storage protein win4.5 - western balsam poplar x cottonwood (fragment) C;Species: Populus trichocarpa x Populus deltoides (western balsam poplar x cottonwood) C;Date: 13.7dan-1995 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004 C;Accession: S39502 R;Davis, J.M.; Egelkrout, E.B.; Coleman, G.D.; Chen, T.H.H.; Haissig, B.B.; Riemenschne: R;Davis, J.M.; Egelkrout, E.B.; Coleman, G.D.; Chen, T.H.H.; Haissig, B.B.; Riemenschne: Plant Mol. Biol. 23, 135-143, 1993 A;Title: A family of wound-induced genes in Populus shares common features with genes en A;Reference number: S39502; MUID:94033285; PMID:8106009
                                      coat protein - arabis mosaic virus (fragment)
C;Species: arabis mosaic virus
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change
C;Accession: S13720; S77995
                    R;Steinkellner,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Residues: 1-324 < DAV >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S39502
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A; Residues: 1-466
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Best Local S
Matches 22
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20; Conserv
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Himmler,
18, 7182,
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G.; Mattanovich, D.; Katinger,
1990
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Pred. No. 1
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apoptosis inhibitor - Autographa californica nuclear polyhedrosis virus C;Species: Autographa californica nuclear polyhedrosis virus, AcMNPV A;Note: dsDNA virus C;Date: 12-Nov-1999 #sequence_revision 12-Nov-1999 #text_change 09-Jul-2004 C;Accession: H72858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: H70609
R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Go; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holr Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998
A;Authors: Squres, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Authors: Equipment of Mycobacterium tuberculosis from the complete A;Reference number: A70500; MUID:98295987; PMID:9634230
A;Accession: H70609
                  R;Ayres, M.D.; Howard, S.C.; Kuzio, J.; Lopez-Ferber, M.; Possee, R.D. Virology 202, 586-605, 1994
A;Title: The complete DNA sequence of Autographa californica nuclear polyhedrosis virus.
A;Reference number: A72850; MUID:94303173; PMID:8030224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 probable dna-3-methyladenine glycosidase I - Mycobacterium tuberculosis (strain C;Species: Mycobacterium tuberculosis C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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A; Residues: 1-506 <STE>
A;Accession: H72858
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                                                                                                      Accession: H72858
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Best Local
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31.8%;
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32.3%;
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Pred. No. 7.5;
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Pred. No. 16;
8; Mismatches
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Holroyd,
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C;Genetics:
A;Gene: NMB0348
C;Superfamily: H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Parkhil, U.; ...eR; Holroyd, S.; Jagels, K.; Holroyd, S.; Jagels, K.; 2000
                                                                                                                                                                                                                 R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Elsen, J.A Hickey, B.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.; ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M. Science 287, 1809-1815, 2000

Science 287, 1809-1815, 2000

A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ver A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.

A;Reference number: A81000; MUID:20175755; PMID:10710307
                                                                     A;Residues: 1-336 <TET>
A;Cross-references: UNIPROT:Q9K14
A;Experimental source: serogroup
                                                                                                                                                                                                                                                                                                                                                                                                                    conserved hypothetical protein NMB0348 [imported] - Neisseria meningitidis (strain MC58 & C;Species: Neisseria meningitidis (C;Species: Neisseria meningitidis (C;Date: 31-Mar-2000 #text_change 09-Jul-2004 C;Date: 31-Mar-2000 #text_change 09-Jul-2004 C;Date: 31-Mar-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
B81210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491.
A;Reference number: A81775; MUID:20222556; PMID:10761919
A;Accession: H91785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conserved hypothetical protein NMA2139 [imported] - Neisseria meningitidis (strain C;Species: Neisseria meningitidis C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 09-Jul-2004 C;Accession: H81785
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A;Cross-references: UNIPROT:P41454; GB:L22858; NID:g510708; PIDN:AAA66701.1; PID:g559140 C;Genetics:
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A;Experimental source: serogroup A, strain Z2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-336 < PAR>
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A; Residues: 1-249
                                                                                                                                                 A; Molecule type: DNA
                                                                                                                                                                        A; Status: preliminary
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19; Conserv
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                                                                     UNIPROT:Q9K142; GB:AE002391;
ce: serogroup B, strain MC58
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Pred. No.
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Pred. No. 1
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                                                                                               GB:AE002098;
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                                                                                               NID: 97225561; PIDN: AAF40791
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Rajandream,
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Haemophilus influenzae conserved hypothetical protein HI0634

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th, T.; Connerton, P.; Cronin, A.; Lucia, T.; Connerton, P.; Cronin, A.; Lucia, S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.;
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.;
A;Title: Complete genome sequence of a multiple drug resistant
A;Title: Complete genome sequence of a multiple drug resistant
A;Title: AB0502; MUID:21534947; PMID:11677608
S
                                                                                                                                                                                                                                                                                                                                                                                                                                    probable dehydratase RfbH rfbH [imported] - Salmonella enterica subsp. ente C;Species: Salmonella enterica subsp. enterica serovar Typhi A;Note: this species has also been called Salmonella typhi C;Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002 C;Accession: AG0766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-1808 <JOH>
A;Residues: 1-1808 <JOH>
A;Cross-references: UNIPROT:O44565; EMBL:AF039041; NID:g2736380; PID:g2736388; PIDN:AABS
                                                                                                   A;Gene: ribH
C;Superfamily: erythromycin resistance protein
                                                                                                                                                                 A;Cross-references: GB:AL513382; C;Genetics:
                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-437 < PAR>
                                                                                                                                                                                                                                                                                                                                                                                         R;Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher th, T.; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar
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A;Accession: T15099
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Best Local :
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                                           Matches
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les 9; Conserv
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  1 YEARIV-TFGTWIYSVNKEQLARAGFY----ALGEGDKVKCFHCGGGLTDWKPSEDPWD
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ilarity 30.6%;
Conservative
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                                        Conservative
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                                                          15.7%;
31.9%;
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                                                            Score 60.5;
Pred. No. 39;
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Pred. No. 1
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Pred. No. 23;
                                           Mismatches
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L.2e+02;
les 6;
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F;1-32/Domain: laminin-type EG'
F;33-1798/Product: laminin-type EG'
F;283-344/Domain: laminin-type EG'
F;347-407/Domain: laminin-type EG'
                                                                                                                                                                                                                                                                                                                             A;Reference number: S53869
A;Accession: S53869
A;Molecule type: mRNA
A;Residues: 1-1798 <IIV>
A;Cross-references: UNIPROT:
C;Genetics:
  F;470-519/Domain:
F;522-552/Domain:
F;783-828/Domain:
F;831-874/Domain:
F;877-924/Domain:
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A;Start codon: (C;Superfamily: C;Keywords: gly
                                                                                                                                                                                            A;Cross-references: GDB:132363; OMIM:150325
A;Map position: 3p21.3-3p21.2
C;Superfamily: laminin beta-1 chain; laminin-type EGF-like homology C;Keywords: basement membrane; extracellular matrix; glycoprotein; C;Keywords: basement membrane; extracellular matrix; glycoprotein; F;1-32/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Note: only a part of A; Note: only a part of C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Iivanainen, A.; Vuolteenaho, R.; Sainio, K.; Eddy, Matrix Biol. 14, 489-497, 1994
A;Title: The human laminin beta-2 chain (S-laminin):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N;Alternate names: s-laminin
C;Species: Homo sapiens (man)
C;Date: 27-Oct.1995 #sequence_revision
C;Accession: S53869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q59833; EMBL:X83397; A;Experimental source: strain A3(2) A;Note: the nucleotide sequence was submitted to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Bruton, C.J.; Plaskitt, K.A.; Chater, Mol. Microbiol. 18, 89-99, 1995
A;Title: Tissue-specific glycogen brancl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1,4-alpha-glucan branching enzyme (EC 2.4.1.18) I - Streptomyces W,Alternate names: glycogen branching enzyme C;Species: Streptomyces coelicolor C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change C;Accession: S70079; T42040
                                                                                                                                                                                                                                                                                                           A; Gene: GDB: LAMB2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Tissue-specific glycogen branching isoenzymes A;Reference number: S70078; MUID:96154943; PMID:8596463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-788 < BRU>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S70079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
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ly: 1,4-alpha-glucan branching
glycogen/starch biosynthesis;
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5 rattus morv
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40, Created)	Last		protein 4 (Inhibitor of	.	,	vnonvma=Ani3. Xian:	Name=B1rC4; Synonyms=Api3, X1ap; Rattus norvecicus (Rat).		redata. Craniata. Vertebrata.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
96	196 AA.	96 AA. date)	96 AA. date) update)		apopt inked	.	. .	<u>.</u> .	n <u>u.</u>	lm. ⊫.

SEQUENCE FROM N.A.

Saito

"Rattus norvegicus X-linked inhibitor of apoptosis (riap3) mRNA."; Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases. -!- FUNCTION: Apoptotic suppressor. Inhibitor of caspase-3, -7 and (By similarity)

SUBUNIT: Interacts with SMAC and with PRSS25; these interactions inhibit apoprotic suppressor activity (By similarity).
SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
SUBAIN: The second BIR domain is sufficient to inhibit caspase-3 and -7, while the third BIR is involved in caspase-9 inhibition. The interactions with SMAC and PRSS25 are mediated by the second and third BIR domains (By similarity).
SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 3 BIR repeats.
SIMILARITY: Contains 1 RING-type zinc finger.

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Pfam; PF00653; BIR; 3.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; 3.
PROSITE; PS50143; BIR REPEAT 2; 3.
PROSITE; PS00518; ZF RING; 1; FALSE NE
PROSITE; PS50089; ZF RING-2; 1.
Apoptosis; Repeat; ZInc-finger.
REPEAT 26 93 BIR 1. InterPro; IPR001370; BIR. InterPro; IPR001841; Znf_ring. HSSP; P98170; 1151. AB033366; BAA85304.1; -. FALSE_NEG

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R SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 3.

PROSITE; PS50143; BIR, REPEAT 2; 3.

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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=11860601
                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                            WEL; AP183429; AAG22969.1; -.
ISSP; P98170; 1151.
GG:0000151; C:ubiquitin ligase complex; IEA.
GG:00004842; F:ubiquitin-protein ligase activi
GG:00004842; F:ubiquitin-protein ligase activi
GG:00006916; F:zinc ion binding; IEA.
GG:00006916; P:anti-apoptosis; IEA.
GG:0006916; P:protein ubiquitination; IEA.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUN-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
                                                                                                                                                                                                                                                                                                                                                                           loning and characterization of Apoptosis protein 1, 2, and C Genomics 3:5-5(2002).
                                                                                    324
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                                                                                                                                                                   l Similarity 62; Conserv
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                                                                                    PGCKYL
                                                                                                                          YDARIVTFGTWLYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                        YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                      PGCKYL
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264
449
496
 (Rel. 34, Created)
(Rel. 34, Last seq
                                                                                                                                                                                                                                                                                                                                                                                                            Lefebvre C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel. 16, Createu, (TrEMBLrel. 16, Last sequence update) (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽,
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329
484
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Rodentia;
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93.9%;
                                                                                                                                                                          94.8%;
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  sequence
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T
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BIR 3.
RING-type.
F, E250E3C77461A469 C
                                                                                                                                                                 Pred. No. 4.90
3; Mismatches
                                                                                                                                                                                     Score 366;
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Pred. No. 4.9e-35;
3; Mismatches 1
                               PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata;
Sciurognathi; Muridae;
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                                                                                                                                                                                                           9BEF142AAEC5B798
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                               497
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                                                                                                                                                                                                                                                                                                                                    activity;
                                                                                                                                                                                                                                                                                                                                              IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Muridae;
                                                                                                                                                                                    Length
                                                                                                                                                                                                          CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRC64;
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RX Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Alschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Alschenko I., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsich F.,
RA Hopkins M.F., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Hopkins C., Marusina K., Farmer M.F., Casavant T.L., Scheetz T.E.,
RA Hopkins S.F., Jordan H.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., McKernan K.J., Malek J.A., Gunaratne P. H.,
RA Brownstein M.J., McKernan K.J., Malek J.A., Gunaratne P. H.,
RA Raha S.S., Kogley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Richards S., Worley K.Ct., Hale S., Garcia A.M., Gabbs R.A.,
RA Willialon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Willalon D.K., Muzny D.M., Schernen K.J., Malek J.A., Gubs R.A.,
RA Willalon D.K., Muzny D.M., Schernen K.J., Muzny G.G., Sanchez A.,
RA Willalon D.K., Muzny D.M., Schernen S.J., Lu X., Gibbs R.A.,
RA Willalon D.K., Muzny D.M., Schernen S.J., Dickson M.C.,
RA Willialon D.K., Grimwood J., Schwelts J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
"Generation and initial analysis of more than 15,000 full-length human
"Generation and initial analysis of more than 15,000 full-length human
                                                                                 MUTAGENESIS OF ASP-148, ASP-214, ASN-259; TRP-310 AND GLU-314. MEDLINE=21634829; PubMed=11604410; DOI=10.104/jbc.M109891200; Verhagen A.M., Silke J., Ekert P.G., Pakusch M., Kaufmann H., Connolly L.M., Day C.L., Tikoo A., Burke R., Wrobel C., Moritz Simpson R.J., Vaux D.L.; "HtrA2 promotes cell death through its serine protease activity its ability to antagonize inhibitor of apoptosis proteins."; J. Biol. Chem. 277:445-454 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUB-Fetal heart;
MEDLINE-96256286; PubMed-8654366;
Duckett C.S., Nava V.E., Gedrich R.W., Clem R.J., V
Gilfillan M.C., Shiels H., Hardwick J.M., Thompson
"A conserved family of cellular genes related to th
gene and encoding apoptossis inhibitors.";
EMBO J. 15:2685-2694(1996).
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Baculoviral IAP repeat-containing protein 4 (
protein 3) (X-linked inhibitor of apoptosis p
(IAP-like protein) (HILP).
Name=BERC4; Synonyms=API3, IAP3, XIAP;
MEDLINE=21020961;
                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=97373959; PubMed=9230442; DOI=10.1038/40901;
Deveraux Q.L., Takahashi R., Salvesen G.S., Reed J.C.;
"X-linked IAP is a direct inhibitor of cell-death proteases.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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[2]
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"Suppression of apoptosis
family of IAP genes.";
                             STRUCTURE
                                                                                                                                                                                                                                                                                                                                                                                 Nature
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Liston P., Roy N., Tamai K., L
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MEDLINE=96149249; PubMed=8552191; DOI=10.1038/379349a0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota;
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                                                                                                                                                                                                                                                                                                                                                                                 388:300-304(1997).
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                             ВΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA sequences.";
l. Acad. Sci. U.S.A.
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OF 241-356 IN COMPLEX WITH SMAC.
; PubMed=11140637; DOI=10.1038/35050006;
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Primates;
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keda J., Mackenzie A., Korneluk R.G.;
in mammalian cells by NAIP and a related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99:16899-16903 (2002)
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Catarrhini;
                                                                                                                  serine protease activity apoptosis proteins.";
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i; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Inhibitor of protein) (X
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            full-length human
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REPEAT
REPEAT
ZN FING
MUTAGEN
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Herrmann J.,
"Structural
                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                   MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nature 408:1004-1008(2000)
    MUTAGEN
                               MUTAGEN
                                                 MUTAGEN
                                                                                                                                                                                                                                                                                                            B; 1C9Q; NMR; A=124-240.
B; 1F9X; NMR; A=237-356.
B; 1G3F; NMR; A=240-356.
B; 1G73; X-ray; C/D=238-358.
B; 1130; X-ray; E/F=120-240.
B; 1140; X-ray; E/F=120-240.
B; 1151; X-ray; C/D=124-240.
B; 1KMC; X-ray; C/D=124-242.
B; 1NM9; X-ray; A=253-350.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: Apoptotic suppressor. Inhibitor of caspase-3, -7 and - SUBUNIT: Interacts with SMAC and with PRSS25, these interactions inhibit apoptotic suppressor activity.

SUBCELLULAR LOCATION: Cytoplasmic.
TISSUE SPECIFICITY: Ubiquitous, except peripheral blood
                                                                                                                                                                                                                                                                                                                                                                              ; S69544;
; 1C9Q; NN
; 1F9X; NN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and -7, while the third BIR is involved in car
The interactions with SMAC and PRSS25 are med
and third BIR domains.
SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 3 BIR repeats.
SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              leukocytes.
DOMAIN: The
                                                                                                                                                                                                                                                                                                                                                                                                          U45880; AAC50373.1; -. U32974; AAC50518.1; -. AL121601; CAB95312.1; -. BC032729; AAH32729.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AIN: The second BIR domain is sufficient to inhibit caspase-3 -7, while the third BIR is involved in caspase-9 inhibition. interactions with SMAC and PRSS25 are mediated by the second
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sun C., Olejniczak E.T., Meadows R.P., n J., Wu J.C., Fesik S.W.; ural basis for binding of Smac/DIABLO to
                                                                                                                                                                                                                                                                                           HIX0017033;
                                                                                      26
163
265
450
148
                                                                    259
                                                                                                                                                                                                                                                                                                                                                                                                   S69544
                                                                                                                                               Apoptosis;
                                                                                                                                                                                                                                                                                                     BIRC4.
                                                                                               93
230
330
485
                               214
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                                                                    259
                                                                                      148
                                                                                                                                             Repeat; Thiol protease inhibitor;
BIR 1.
BIR 2.
BIR 3.
BIR 3.

RING-type.
D->A: Reduced interaction with PRSS25;
when associated with S-214.
N->D: Reduced interaction with PRSS25;
when associated with S-314.
W->R: Reduced interaction with PRSS25;
when associated with S-314.
D->S: Reduced interaction with PRSS25.
Reduced interaction with PRSS25.
Reduced interaction with PRSS25.
Reduced interaction with PRSS25.
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    and
  RESULT Q9EQ04
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OSEQ04 PRELIMINARY; PRT;
OSEQ04;
O1-MAR-2001 (TrEMBLrel. 16, Created)
O1-MAR-2001 (TrEMBLrel. 24, Last se)
O1-JUN-2003 (TrEMBLrel. 24, Last an
Inhibitor of apoptosis protein 3.
Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Crani
Mammalla; Eutheria; Rodentia; Sciur
                                                                                                                          Query Match
                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=Wistar; TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                    CONFLICT
            NCBI_TaxID=10116;
                                                                             325
                                                                                               265
                                                                                     61
                                                                                                        -
                                                                                                                l Similarity
63; Conserv
                                                                                              PGCKYL
                                                                             PGCKYL
                                                                                                                                  343
497
                                                                                                                                            Conservative
                                                                                                                                   ₹
                                                                                      66
                                                                                                                                        94.8%;
                                                                                                                                   56684 MW;
                                                                                                                Score 366; DB 1
Pred. No. 5e-35;
1; Mismatches
                                             Created)
                                                                                                                                                                                                                                                                                                                   with PRSS25. Decreases interaction PRSS25; when associated with D-259 310.
S -> C (in Ref. 1).
Q -> P (in Ref. 2).
                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                      PRT;
                                                                                                                                   9D394C16D45EB635 CRC64;
                                  sequence update)
annotation update)
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                                                                                                                          Length
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RESULT

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R GO; GO:0000151; C:ubiquitin-protein ligase activ:
R GO; GO:0008270; F:zinc ion binding; IEA.
R GO; GO:0006216; P:anti-apoptosis; IEA.
R GO; GO:0016567; P:protein ubiquitination; IEA.
R InterPro; IPR001370; Prot_inh_I32_IAP.
R InterPro; IPR001370; Prot_inh_I32_IAP.
R InterPro; IPR001384; Znf_ring.
R J Fam; PF00653; BIR; 3.
R SMART; SM00184; RING; 1.
                                                                                                                              corpus luteum.";
Biol. Reprod. 68:2232-2240(2003).
BMBL; AR304333; AAG41192.1; -.
HSSP; P98170; 1151.
GO; GO:0000151; C:ubiquitin ligase complex; IEA.
GO; GO:0004842; F:ubiquitin-protein ligase activity
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
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Best Local &
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01-MAR-2001
01-JUN-2003
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  SMART; SM00238; BIR; 3.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 3.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS50089; ZF RING 2; 1.

SEQUENCE 501 AA; 56548 MW; 097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=Wistar; TISSUE=Ovary;
MEDLINE=22642584; PubMed=12606402;
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8,39,99,99
8,39,99,99,99
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Inhibitor of apoptosis protein Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS01282; BIR REPEAT 1;
PROSITE; PS50143; BIR REPEAT 2;
PROSITE; PS50089; ZF RING 2; 1.
SEQUENCE 501 AA; 56578 MW;
                                                                                                                                                                                                                                                                                                                                                                                                          "Regulated expression of inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                               Dharmarajan A.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lareu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
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Dharmarajan A.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Regulated expression of inhibitor of apoptosis protein 3 in the rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22642584;
Lareu R.R., Lachen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  264
                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.R., Lacher M.D., Bradley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reprod. 68:2232-2240(2003).
AF304334; AAG41193.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 16, Createu,
(TrEMBLrel. 16, Last sequence up
(TrEMBLrel. 24, Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94.8%;
93.9%;
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Pred. No. 5e-35;
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  0973FBF28E81C5A0
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on update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murinae; Rattus.
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Best Local S
Matches 61
InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIR4 MOUSE STANDARD; PRT; 496 AA.

Q60989; O08865;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
D5-JUL-1004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 4 (Inhibitor of apoptosis protein 3) (X-linked inhibitor of apoptosis protein) (X-linked IAP)
(IAP homolog A) (MIAP3) (MIAP-3).
Name=Birc4; Synonyms=Aipa, Api3, Miha, Xiap;
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=C57BL/6 X CBA; TISSUE=Liver;
MEDLINE=96209843; PubMed=8643514; DOI=10.1073/pnas.93.10.4974;
Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
"Cloning and expression of apoptosis inhibitory protein homolo;
function to inhibit apoptosis and/or bind tumor necrosis facto;
receptor-associated factors.";
Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOUSE
                                                                                                                                                                                                                                     EMBL; U36842;
                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBUNIT: Interacts with SMAC and with PRSS25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Farahani R., Lefebvre Submitted (JUN-1997) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inhibit apoptotic suppressor activity (By similarity).
SUBCELULAR LOCATION: Cytoplasmic (By similarity).
DOMAIN: The second BIR domain is sufficient to inhibit and -7, while the third BIR is involved in caspase-9 in The interactions with SMAC and PRSS25 are mediated by t and third BIR domains (By similarity).
SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 3 BIR repeats.
SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                 GO:0001719; P:inhibition
                                                                                                                                                 , U88990; AAB:
, P98170; 115;
, MGI:107572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: Apoptotic suppressor. Inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (By similarity)
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                                                                                                                                                                                                          AAC52594.1; -.
AAB58376.1; -.
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Rodentia;
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we EMBL/GenBank/DDBJ datah
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Pred. No. 2e-34;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                 caspase
                                                                                                                                                                                                                                                                                                                                                                 There are no restrictions ing as its content is in
                                                                                                                                 activation;
                                                                                                                                                                                                                                                                                                                                      Usage
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MEDLINE=21286921; PubMed=11390657;

MEDLINE=21286921; PubMed=11390657;

X DOI=10.1128/MCB.21.13.4292-4301.2001;

X DOI=10.1128/MCB.21.13.4292-4301.2001;

A Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Reffey S.B.,

A Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Reffey S.B.,

A Richter B.W.M., Mir S.S., Youle R.J., Nelson D.L.,

A Notarangelo L.D., Vezzoni P., Fearnhead H.O., Duckett C.S.;

"Moltarangelo L.D., Vezzoni P., Fearnhead H.O., Duckett C.S.;

T "Molecular cloning of ILP-2, a novel member of the inhibitor of

T apoptosis protein family.";

L Mol. Cell. Biol. 21:4292-4301(2001).

L GUINT: Biods to caspase-9.

C -!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).

C -!- TISSUE SPECIFICITY: Testis specific in normal tissues.
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REPEAT
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PROSITE;
PROSITE;
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Lagace M., Xuan J.-Y., Young S.S., McRoberts C., Maier J., Rajcan-Separovic E., Korneluk R.G.; "Renomic organization of the X-linked inhibitor of apoptosis identification of a novel testis-specific transcript."; Genomics 77:181-188(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last amotation update)
Baculoviral IAP repeat-containing protein 8 (
like protein 2) (IAP-like protein 2) (ILP-2)
inhibitor of apoptosis).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HUMAN
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Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q96P09; Q96RW5;
28-FEB-2003 (Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21481900; PubMed=11597143; Lagace M., Xuan J.-Y., Young S.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=BIRC8; Synonyms=ILP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BIR8 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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PS50143;
PS00518;
PS50089;
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; BIR_REPEAT_2;
; ZF_RING_1; FAL;
; ZF_RING_2; 1.
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E -> C (in
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C -> F (in
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Pred. No. 5.8e-34;
l; Mismatches 3
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s specific
IAP famil
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McRoberts C., Mai
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(Testis-specific
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InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 1.
SMAXT; SM00238; BIR; 1.
SMAXT; SM00184; RING; 1.
PROSITE; PS01280; BIR REPEAT 1; 1.
PROSITE; PS50143; BIR REPEAT 2; 1.
PROSITE; PS50184; ZF RING 1; FALSE N
PROSITE; PS50089; ZF_RING_2; 1.
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REPEAT
ZN FING
CONFLICT
SEQUENCE
Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
                                                                                                                                                                          MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                           Name=BIRC8;
                                                                                                                                                                                                                                                                                                                       05-JUL-2004
Baculoviral
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                                                                                                                                                                                                                                                                                                                                                                                 Q6PIA0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between the Swiss Institute of Bioinformatics and the EMBL outst
the European Bioinformatics Institute. There are no restrictions
use by non-profit institutions as long as its content is in
modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                         TISSUE=Testis;
                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                           Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Contains 1 BIR repeat.
SIMILARITY: Contains 1 RING-type zinc finger.
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AF164682;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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AAK81892.1; -.
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Y -> H (in Ref. 2).
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X MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
X Klausner R.D., Feingold E.A., Grouse L.H., Derge J.G.,
X Klausner R.D., Collins F.S., Wagner L., Schaefer C.M., Schuler G.D.,
X Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
X HOpkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
X Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,
X Schapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
X Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
X Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
X Scapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
X Raha S.S., Loquellamo N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
X Raha S.S., Loquellamo N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
X Raha S.S., Mocley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
X Hitchards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
X Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
X Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
X Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
X RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
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Submitted (NOV-2002) to the EMBL/GenBank/DDBJ datar

REMBL; BC039318; AAH39318.1; -.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

REGO; GO:0004842; F:ubiquitin-protein ligase activit;

REGO; GO:0008270; F:zinc ion binding; IEA.

REGO; GO:0008516; P:anti-apoptosis; IEA.

REGO; GO:0006916; P:protein ubiquitination; IEA.

REGO; GO:016567; P:protein ubiquitination; IEA.
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SMART; SM00238; BIR; 1.

SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 1.

PROSITE; PS50143; BIR REPEAT 2; 1.

PROSITE; PS50089; ZF RING 2; 1.

SEQUENCE 236 AA; 27077 MW; DF383
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Q6IPY1;
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05-JUL-2004
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Mammalia; Eutheria;
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Name=BIRC8;
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Primates;
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J., Myers R.M., But
D.E., Schnerch A.,
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Q95M72;
Q95M72;
28-FEB-2003 (Rel. 41, Created)
F 28-FEB-2003 (Rel. 41, Last sequence update)
T 05-JUL-2004 (Rel. 44, Last amnottation update)
B Baculoviral IAP repeat-containing protein 8 (
JE like protein 2) (IAP-like protein 2) (ILP-2).
GN Name-BIRC8; Synonyms-ILP2;
GS Pan troglodytes (Chimpanzee).
OC Bukaryota; Metazoa; Chordata; Craniata; Vert
But Control of the control of t
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MEDLINE=21286921; PubMed=11390657;
DOI=10.1128/MCB.21.13.4292-4301.2001;
Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Ref. Richter B.W.M., Tian L., Frank S., Youle R.J., Nelson Motarangelo L.D., Vezzoni P., Fearnhead H.O., Ducke
                     This
                                                                                                                                                                       "Molecular cloning of ILP-2, a novel member apoptosis protein family.";
Mol. Cell. Biol. 21:4292-4301(2001)
-I- FUNCTION: Protects against apoptosis med
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                                                 similarity).
SUBUNIT: Binds to caspase-9 (By similarity).
SUBCELLULAR LOCATION: Cytoplasmic (Probable).
SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 1 BIR repeat.
SIMILARITY: Contains 1 RING-type zinc finger.
 SWISS-PROT entry is copyright. It is produce the Swiss Institute of Bioinformatics
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Inhibitor of
                                                                                                                                                                                                                                                 Puckett C.S.;
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                                                                                                                                                                                                                                                                                     Reffey
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                                                                                                                                                                                                                                   inhibitor
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                                                                                                                                                                           XAB
                                                                                                                                                                                                                                                                                       S.B.,
                                                                                                                                                                         γB)
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     a collaboration -
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restrictions

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BIRBGUAT 11
BIRBGARGG
ID BIRB
AC Q95M7

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Best Local S
Matches 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIRB GORGO STANDARD; PRT; 236 AA.

Q95M71;
Q95M71;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 8 (Inh
like protein 2) (IAP-like protein 2) (ILP-2).
Name-BIRC8; Synonyms-ILP2;
Gorilla gorilla (Lowland gorilla).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00238; BIR; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 1.

PROSITE; PS50143; BIR REPEAT 2; 1.

PROSITE; PS500143; BIR REPEAT 2; 1.

PROSITE; PS500518; ZP RING 1; FALSE N PROSITE; PS50089; ZP RING 2; 1.

Apopttosis; Zinc-finger.
                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                         -!- SUBUNIT: Binds to caspase-9 (By similarity).
-!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).
-!- SIMILARITY: Belongs to the IAP family.
-!- SIMILARITY: Contains 1 BIR repeat.
-!- SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21286921; PubMed=11390657;
DOI=10.1128/MCB.21.13.4292.4301.2001;
Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Ref Frattinia A., Tian L., Frank S., Youle R.J., Nelson Notarangelo L.D., Vezzoni P., Fearnhead H.O., Ducke "Molecular cloning of ILP-2, a novel member of the apoptosis protein family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Apoptosis;
REPEAT
ZN_FING
                                                                                                                                                                                                                                                                                                                                                                apoptosis protein family.";
Mol. Cell. Biol. 21:4292-4301(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GORGO
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InterPro; IPR001841; Znf_
Pfam; PF00653; BIR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AY030052; AA:
HSSP; P98170; 1G73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are ruse by non-profit institutions as as its omodified and this statement is not removed. Usage entities requires a license agreement (See http://v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9595;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                     FUNCTION: Protects against apoptosis mediated
                                                                                                                                                                                                                                                                                                                similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              236 AA;
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27136
     license agreement
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Pred. No. 7.9e-31;
8; Mismatches 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIR.
RING-type.
; 64CCA3A251420EDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FALSE_NEG
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  (See http://www.isb-sib.ch/announce/
                     There are no restrictions 
ong as its content is in 
ved. Usage by and for com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        There are no rest
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  . Usage by and for commercial http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                   elson D.L.,
Duckett C.S.;
f the inhibitor
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                                                                                                                  Query Match
Best Local S
Matches 51
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Best Local :
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Q8UVF8;
Q8UVF8;
01-MAR-2002
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                             Q96RW6;
01-DEC-2001
01-DEC-2001
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZN FING
SEQUENCE
                                                                                                                                                       GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptos16; IEA.
InterPro; IPR001370; Prot_inh_I32_IAP
Pfam; PF00653; BIR; 1.
SMART; SM002238; BIR; 1.
SROSITS; PS50143; BIR REPEAT_2; 1.
SEQUENCE 106 AA; 12360 MW; 6BBAD3/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00238; BIR; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; FALSE NEG PROSITE; PS50143; BIR REPEAT 2; 1.

PROSITE; PS00518; ZF RING 1; FALSE NEG. PROSITE; PS0089; ZF_RING_2; 1.
                                                                                                                                                                                                                           EMBL; AF164681; AAK
HSSP; P98170; 1G3F.
                                                                                                                                                                                                                                            Mir S.S., Duckett C.S.;
Submitted (JUL-1999) to
                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                     Q96RW6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Apoptosis; Zinc-finger.
REPEAT 7 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001370;
InterPro; IPR001841;
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HSSP; P98170; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                             Name=ILP3;
                                                                                                                                                                                                                                                                                                                                    IAP-like protein
                                                                                                                                                                                                                                                                                                                                                                                                                                     64
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                                                                                                                   51;
                                                                                                                  Similarity 91.:
51; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                         WIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCYPGCKYL
                                                                              WIYSVNKEQLSRAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHDKWHPGCKYL
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                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel.
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                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       66
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224 RING-type.
27120 MW; C3A70B39EE442E4C CRC64;
                                                                                                                                                                                                                                                                                              Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84.2%;
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Znf_ring.
                                                                                                                           79.3%;
91.1%;
                                                                                                                                                                                                                                               to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                              19,
19,
24,
                                                                                                                 Score 306; DB 2;
Pred. No. 1.5e-28;
3; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                 Created)
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Pred. No. 1.8e-30;
9; Mismatches 5;
                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                         6BBAD3AEA880A891 CRC64;
                              493
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                                                                                                                   Gaps
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(TrEMBLrel. (TrEMBLrel.

20,

Created)
Last sequence update)

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RESULT 14
QBWMY4
ID WMY4
AC QBWMY
AC QBWMY
DT 01-MJ
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GN Name
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Best Local S
Matches 47
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Pfam; PF00097; zf-C3HC4; 1.

SMART; SM00238; BIR; 3.

SMART; SM00184; RING; 1.

SMOSITE; PS01282; BIR_REPEAT_1; 2.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50089; ZF_RING_2; 1.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 493 AA; 55251 MW; 030A9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q8WMY4;
Q8WMY4;
01-MAR-2002
01-MAR-2002
       PROSITE;
NON_TER
NON_TER
SEQUENCE
                                                                                          Pfam; PF00653; BIR; 2.
Pfam; P800633; BIR; 1.
SMART; SM00238; BIR; 1.
PROSITE; PS50143; BIR_REPEAT_2;
                                                                                                                                                                                                                                                                             Jimenez A., Pintado B., De la
Submitted (DEC-2001) to the EMI
EMBL; AP458770; AAL66179.1; --
HSSP; P98170; 1130.
                                                                                                                                                                                                               GO; GO:0005622; C:intracellular; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. Gutierrez-Adan A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP, P98170; 1130.

GO; GO:0000151; C:ubiquitin ligase complex GO; GO:00004842; F:ubiquitin-protein ligase GO; GO:00004872; F:zinc ion binding; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:0016567; P:protein ubiquitination; Pfam; PF00653; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bridgham J.T., Johnson A.L.;

Submitted (NOV-2011) to the EMBL/GenBank/DDBJ
-!- SIMILARITY: Contains 1 RING-type zinc fing
EMBL; AP451854; AAL47170.1; -...
HSSP; P98170; 1130.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bovinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2003 (TrEMBL
X-linked inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=IAP3;
Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=XIAP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2003 (TrEMBLrel. 24, Last annotation update) Inhibitor of apoptosis protein 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO:0000151; C:ubiquitin ligase complex; GO:0000151; C:ubiquitin-protein ligase a GO:0004842; F:ubiquitin-protein ligase a GO:0008270; F:zinc ion binding; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YERRIQTFLAWIYPVNKEHLAEAGFYSTGNGDHVVCFHCGGGLQEWKENEDPWDQHAKWF
          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel. 20, Created)
(TrEMBLrel. 20, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
nibitor of apoptosis protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                              Madrid-Bury N., Arroyo-Garcia R., lo B., De la Fuente J.;
   109
12361 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72.3%;
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Weognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
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Pred. No. 1.2e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
   C4027DC88213DE6D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      030A9F56CB6119BC CRC64;
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activity;
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W Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altschell S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Wullahy S.J.,
A Roman S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Roha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Roha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Villalon B., Ketteman M., Madan A., Gay L.J., Hulyk S.W.,
A Holton B., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Holton B., Chimar J.W., Green E.D., Dickson M.C.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
A Krzywinski M.I., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,
A Tones S. T. Mayra M.A.
                                                                                                                                                                                                                             Query Match
Best Local S
Matches 34
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25-OCT-2004
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hypothetical protein.

Brachydanio rerio (Zebrafish)

Brachydanio Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                            PROSITE; PS50143; BIR REPEAT_2; 3. Hypothetical protein. SEQUENCE 322 AA; 36412 MW; F95
                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; BC078344; AAH78344.1; -. (GO; GO:0005622; C:intracellular; IEA. GO; GO:000616; P:anti-apoptosis; IEA. InterPro; IPR001370; Prot_inh_I32_IAP. Pfam; PF00653; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lacinyuanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jones S.J., Marra M.A.; "Generation and initial analysis of and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg R
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289
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                                                                                                                                               1 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                                                                                                   34;
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                                                     PGCKYL
PGCSFL
                                                                                                              FEGRLDSFKGRQHPIDPERLARAGFYSTGEQDRVMCFRCGGGVKAWMPDEDPWEEHARHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                Conservative
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294
                                                        66
                                                                                                                                                                                                                                                                                                                                               36412 MW; F9562546FA200CDF CRC64;
                                                                                                                                                                                                                                                        54.9%;
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                                                                                                                                                                                                                          14;
                                                                                                                                                                                                                          Score 212; DB
Pred. No. 7.3e
14; Mismatches
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Last annotation update)
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Pred. No. 8e-23;
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                                                                                                                                                                                                                                                           DB 2;
'.3e-17;
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                                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                   Length
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RESULT 16
QBUWH2
QBUWH
AC QBUWH
AC QBUWH
DT 01-MJ
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CC CYPT
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RN [1]
RP SEQ
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Best Local S
Matches 34
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R ZEFIN; ZDB-GENE-030825-7; birc4.

R GO; GO:0000151; C:ubiquitin ligase complex; IEA.

R GO; GO:0000151; C:ubiquitin-protein ligase activity; IEA.

R GO; GO:0008270; F:zinc ion binding; IEA.

R GO; GO:0008270; F:zinc ion binding; IEA.

R GO; GO:0008270; P:protein ubiquitination; IEA.

R GO; GO:0006916; P:protein ubiquitination; IEA.

R GO; GO:0016567; P:protein ubiquitination; IEA.

R GO; GO:001653; BIR; 3.

R Pfam; PF00053; BIR; 3.

R Pfam; PF00097; zf-C3HC4; 1.

R SMART; SM002184; RING; 1.

R SMART; SM00184; RING; 1.

R SMART; PSS0143; BIR REPEAT_2; 3.

R PROSITE; PSS0018; ZF RING; 2; 1.

R PROSITE; PSS0018; ZF RING; 2; 1.

R PROSITE; PSS0018; ZF RING; 1.

R PROSITE; PSS0018; ZF RING; 1.

R PROSITE; PSS0018; ZF RING; 1.
                                                                                                                                                                                           Q75XU1
Q75XU1;
Q75XU1;
01-OCT-2003 (TrEMBLrel. 25, C
01-OCT-2003 (TrEMBLrel. 25, L
01-MAR-2004 (TrEMBLrel. 26, L
Birc4 protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q8UWH2;
Q8UWH2;
01-MAR-2002
01-MAR-2002
                                                                    Name=birc4;
Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brachydanio rerio (Zebrafish) (Danio rerio).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=20373792; PubMed=10917738;
Inohara N., Nunez G.;
                                          Cyprinidae; Danio. NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inohara N., Nunez G.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases
  SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              PGCSFL 294
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54.9%;
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                                                                                                                                                                                                                           Created)
Last sequence update)
Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 212; DB 2;
Pred. No. 9.2e-17;
4; Mismatches 18
                                                                                                                                                                                                                                                                                                                               415
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 405;
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RESULT 18
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ID Q6VTV9
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AC Q6VTV
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RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Mocley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Mozny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Alones S. T. Mayara M.A.,
RA Alones S. T. Mayara M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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Best Local (
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ZFIN; ZDB-GRNE-030825-7; birc4.

GO; GO:0000151; C:ubiquitin ligase complex; IE
GO; GO:0004842; F:ubiquitin-protein ligase act
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008216; P:anti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
InterPro; IPR001370; Prot inh I32_IAP.
InterPro; IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
SMOSITE; PS500143; BIR REPEAT 2; 3.
PROSITE; PS50089; ZF RING 2; 1.
Metal-binding; Zinc; Zinc-finger.
NON_TER
                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Creat. 05-JUL-2004 (TrEMBLrel. 27, Last 1 05-JUL-2004 (TrEMBLrel. 27, Last 1 inhibitor of apoptosis protein 3. Choristoneura fumiferana defective
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                                      Viruses; dsDNA viruses, Nucleopolyhedrovirus.
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Submitted (JUL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
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                                                                                                                        defective nucleopolyhedrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14;
                                                                                 RNA stage;
                                                                                                                                                                                                         Last sequence update)
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Pred. No. 9.4e-17;
4; Mismatches 18
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                                                                                                                                                                                                         update)
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AC Q1
DT Q1
CR QX
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-1- SIMILARITY: Contains 1 RING-type zinc finger.

R GG; GG:0000151; C:ubiquitin ligase complex; IEA.

GG; GG:00004842; F:ubiquitin-protein ligase activity; IEA

GG; GG:0008270; F:zinc ion binding; IEA.

GG; GG:0008270; F:zinc ion binding; IEA.

GG; GG:0006916; P:anti-apoptosis; IEA.

GG; GG:0016567; P:protein ubiquitination; IEA.

R InterPro; IPR001370; Prot inh I32_IAP.

R InterPro; IPR001370; Prot inh I32_IAP.

R InterPro; IPR001841; Znf_ring.

R InterPro; IPR001841; Znf_ring.

R Pfam; PF00057; Zf-G3HC4; 1.

R Pfam; PF00057; Zf-G3HC4; 1.

R SMART; SM00184; RING; 1.

R SMART; SM00182; BIR; 2.

R PROSITE; PS01282; BIR; REPEAT_1; 2.

R PROSITE; PS01282; BIR REPEAT_1; 2.

R PROSITE; PS50143; BIR REPEAT_2; 2.

R PROSITE; PS50143; BIR REPEAT_1; 2.

R PROSITE; PS50143; BIR REPEAT_1; 2.

R PROSITE; PS50143; BIR REPEAT_1; 2.

R PROSITE; PS50143; BIR; CABROAGIAHPEDPIAN CRC64.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIR3 HUMAN STANDARD; PRT; 604 AA.

013489; Q16628; Q9HC27; Q9UP46;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 3 (Inhibitor of apoptosis protein 1) (HIAP1) (HAP-1) (C-IAP2) (TWPR2-TRAF signaling complex protein 1) (IAP homolog C) (Apoptosis inhibitor 2) (API2).

Name=BIRC3; Synonyms=API2, IAP1, MIHC;
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDLINE-96128127; PubMed-8548810; DOI=10.1016/0092-8674(95)90149-3;

Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., Goeddel D.V.;

"The TNFR2-TRAF signaling complex contains two movel proteins related to baculoviral inhibitor of apoptosis proteins.";
Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat Farahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.; "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAMDH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [1]
SEQUENCE FROM N.A.
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                                                                                                                                                                MEDLINE=96149249; PubMed=8552191; DOI=10.1038/379349a0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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Primates;
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4; Mismatches
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Pred. No. 5.7e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata;
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RX DDI=10.1002/1098-2264 (2000) 9999:9999<::AID-GCC1036>3.0.CO;2-I;
RX DDI=10.1002/1098-2264 (2000) 9999:9999<::AID-GCC1036>3.0.CO;2-I;
RX DDI=10.1002/1098-2264 (2000) 9999:9999<::AID-GCC1036>3.0.CO;2-I;
RR Baens M., Steyls A., Dierlamm J., De Wolf-Peeters C., Marynen P.;
RA Baens M., Steyls A., Dierlamm J., De Wolf-Peeters C., Marynen P.;
RA Baens M., Steyls A., Dierlamm J., De Wolf-Peeters C., Marynen P.;
RR genomic breakpoint junctions in the t(11;18) (q21;q21) of marginal zone
RT B-cell lymphomas of MALT type.";
RC Genes Chromosomes Cancer 29:281-291(2000).
CC Grom an heteromeric complex, which is then recruited to the tumor
CC Inhibit apoptocic suppressor and with PRS25; these interactions
CC Inhibit apoptocic suppressor activity.
CC INSUBSTRUMENT: Interacts with SMAC and with PRS25; these interactions
CC INSUBCLIULAR LOCATION: Cytoplasmic (Potential).
CC INSUBCLIULAR LO
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RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschil S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschil S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins C., Warusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Hownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Rahay J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmtz J., Myers R.M.,
ROdriguez A.C., Grimwood J., Schmtz J., Myers R.M.,
"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Horrevoets A.J., Fontijn R.D
ten Cate J.W., Pannekoek H.;
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[3]
MALTI and BIRC3.

SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 3 BIR repeats.
SIMILARITY: Contains 1 CARD domain.
SIMILARITY: Contains 1 RING-type zinc finger.
DATABASE: NAME=Atlas Genet. Cytogenet. Oncol.
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AC Q6E7G
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RE InterPro; IPR0101379; DEATH like.

RE InterPro; IPR0101315; CARD.

RE InterPro; IPR0101315; CARD.

RE InterPro; IPR0101841; Znf ring.

RE InterPro; IPR0101841; Znf ring.

RE InterPro; IPR0101841; Znf ring.

RE Ffam; PF000619; CARD; 1.

RE Pfam; PF000619; Zf-C3HC4; 1.

RE Pfam; PF000619; Zf-C3HC4; 1.

RE Pfam; PF000619; Zf-C3HC4; 1.

RE Pfam; PF000614; CARD; 1.

RE Pfam; PF000144; CARD; 1.

RE SMART; SM001144; RING; 1.

RE PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS01318; ZF_RING_1; FALSE_NEG.

RE PROSITE; PS010518; ZF_RING_1; FALSE_NEG.

RE PROSITE; PS010518; ZF_RING_1; FALSE_NEG.

RE PROSITE; PS01089; ZF_RING_1; FALSE_NEG.

RE PROSITE; PS01089; ZF_RING_1; FALSE_NEG.

REPEAT 29 96

BIR 1.

REPEAT 29 96

REPEAT 255 322

BIR 3.

TOMAIN 439 529 CARD.

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EMBL; U45878; AAC50371.1; -.
EMBL; U17546; AAC50507.1; -.
EMBL; AF070674; AAC83232.1; -.
EMBL; BC037420; AAH37420.1; -.
EMBL; BC037420; AAH37420.1; -.
EMBL; AF070674; AAC83232.1; -.
EMBL; AF0718945; AAG09369.1; -.
EMBL; AF070849; S68449.
HSSP; Q13490; 1QBH.
HSSP; Q13490; 1QBH.
Q6E7G7;
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DOMAIN
ZN FING
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO; GO:0005515; F:protein binding; NAS.
GO; GO:0006916; P:anti-apoptosis; TAS.
GO; GO:0007166; P:cell surface receptor linked signal transdu. . .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genew; HGNC:591; BIRC3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WWW="http://www.infobiogen.fr/services/chromcancer/Genes/BIRC3ID239.html".
                                                                                                                                                          315
                                                                                                                                                                                                           59 CYPGCKYL 66
                                                                                                                                                                                                                                                                                                               1 YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
                                                                                                                                                                                                                                                                                                                                                                     38;
                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                          WFPRCEYL
                                                                                                                                                                                                                                                              HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604 AA;
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119
153
163
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364
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                                PRELIMINARY;
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                             PRT;
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Y (in Ref. 2).
S (in Ref. 2).
P (in Ref. 2).
Y P (in Ref. 2).
Y R (in Ref. 2).
Y R (in Ref. 2).
Y P (in Ref. 2).
                             287
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 604;
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InterPro; IPR001841; Znf_ring.
Pfam; PP00653; BIR; 2.
SMART; SM00238; BIR; 2.
PROSITE; PS01282; BIR REPEAT_1; 2.
PROSITE; PS01283; BIR_REPEAT_2; 2.
PROSITE; PS50143; BIR_REPEAT_2; 2.
PROSITE; PS50089; ZF RING 2; 1.
SEQUENCE 287 AA; 32620 MW; 20F3A7F0C
                                                                                                                                                                                                                                                                                                           062640;
15-DEC-1998 (
15-DEC-1998 (
05-JUL-2004 (
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25-OCT-2004
25-OCT-2004
                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restrue by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AY525121; AAS92269.1; -. GO:0000151; C:ubiquitin ligase complex; IEA. GO; GO:0004842; F:ubiquitin-protein ligase activity; GO; GO:0008270; F:zinc ion binding; IEA. GO; GO:0008276; P:anti-apoptosis; IEA. GO; GO:0016567; P:protein ubiquitination; IEA.
entities requires a license agreement
                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                      Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                             PIAP_PIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (JAN-2004) to the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anticarsia gemmatalis n
Viruses; dsDNA viruses,
Nucleopolyhedrovirus.
                                                                                                                                                                                                                                 NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                     Name=PIAP
                                                                                                                                                                                                                                                                                                  Putative inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ribeiro B.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carpes M.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=31507;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARLKTFEDWPLSLKQRPEQLAEAGFYYTGKGDKVKCFYCDGGLKDWANADEPWEEHARWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
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                                                                                                                                                                                                                                                                                              (Rel. 37, Created)
(Rel. 37, Last sequence update)
(Rel. 44, Last annotation update)
nibitor of apoptosis.
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                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  66
                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Cetartiodactyla; Suina; Suidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nuclear polyhedrosis virus (AgMNPV).
s, no RNA stage; Baculoviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Soares E.F., Villela A.G., Pinedo F.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 196; DB 2;
Pred. No. 5.2e-15;
                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20F3A7F0C11C4C2B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                              358 AA.
(See http://www.isb-sib.ch/announce/
      rmatics and the EMBL outst There are no restrictions ng as its content is in ved. Usage by and for conved.
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Sus.
                                              EMBL outstation
                                               a collaboration - MBL outstation -
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Matches 37
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PIR; JC5964; JC5964.
HSSP; Q13490; 1QBH.
InterPro; IPR001370; BIR.
InterPro; IPR001315; CARD.
InterPro; IPR011029; DEATH like.
InterPro; IPR011029; DEATH like.
InterPro; IPR011029; DEATH ST.
PFam; PP00613; BIR; 2.
Pfam; PP00619; CARD; 1.
Pfam; PP00619; CARD; 1.
Pfam; PP00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 2.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR_REPEAT_1; 2.
PROSITE; PS01282; BIR_REPEAT_2; 2.
PROSITE; PS01282; BIR_REPEAT_2; 2.
PROSITE; PS00518; ZF_RING_1; PALSE_NEG.
PROSITE; PS00518; ZF_RING_1; PALSE_NEG.
PROSITE; PS00518; ZF_RING_2; 1.
Pfam; PF00653; BIR; 2.

SMAXT; SM00238; BIR; 2.

PROSITE; PS01282; BIR REPEAT 1; 2

PROSITE; PS50143; BIR_REPEAT 2; 2

NON TER 1 1 1

NON TER 195 195

SEQUENCE 195 AA; 22347 MW; 9C
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Q9IA70;
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Inhibitor of apoptosis 1 (Fragment).
Gallus gallus (Chicken).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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ZN FING
SEQUENCE
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REPEAT
REPEAT
                                                                                                                                                                                                                                                                  Specific genes.";

Specific genes.";

Poult. Sci. 80:284-288(2001).

Poult. Sci. 80:284-288(2001).
                                                                                                                                                              GO; GO:0005622; C:intracellular; IBA.
GO; GO:0006916; P:anti-apoptosis; IEA
InterPro; IPR001370; Prot_inh_I32_IAP
                                                                                                                                                                                                                                             EMBL; AF221082; AAF35319.1;
HSSP; Q13490; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                   STRAIN-breed Leghorn; TISSUE-Spleen; MEDLINE-21158006; PubMed-11261557; Zhou H., Liu W., Lamont S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                               "Genetic variation among
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22
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37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYPGCKYL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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BIR 2.
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W; EB2268FA9A6190A4 (
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Pred. No. 6.6e-15;
7; Mismatches 22;
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  9C39BFA755E24E48
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                                                                                                                                                                                                                                                                                                                                               mammalian
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RESULT
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ID Q9ESE9
AC Q9
AC Q9
DT 011
DT 01
DT 01
DT 02
COX RE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 36
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Best Local S
Matches 36
  Q9ESE9 PRELIMINARY; PRT; 602 AA.
Q9ESE9;
01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Inhibitor of apoptosis protein 1.
Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi,
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Ratt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9IA69;
01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Inhibitor of apoptosis 1 (Fragment).
Gallus gallus (Chicken).
Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus.
NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptos18; IEA.
InterPro; IPR001370; Prot_inh_I32_IAP
Pfam; PF00653; BIR; 2.
SMART; SM00238; BIR; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS01282; BIR REPEAT 1; PROSITE; PS50143; BIR REPEAT 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AF221083; AAF35320.1;
HSSP; Q13490; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Genetic variation among chicken lines specific genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhou H., Liu W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=breed Fayoumi; TISSUE=Spleen; MEDLINE=21158006; PubMed=11261557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9IA69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Poult. Sci. 80:284-288(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                    177
                                                                                                                                                                                                                                                                                                                                                                                                                                                   117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      176
                                                                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 YEARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                  : | |: | |
WFPRCEYL 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                HEARVKTFINWPTRIPVQPEQLADAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWIEHAK
                                                                                                                                                                                                                                                                                                                                                                                                CYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YEARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WFPRCEYL 183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HEARVKTFINWPTRIPVQPEQLADAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWIEHAK
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197
197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22602 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 192; DB 2;
Pred. No. 1.1e-14;
8; Mismatches 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D7923DABCF623E1A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 197;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                            Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              species
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                : 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58
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RESULT 25
BIR_CLO 25
BIR_CLO 20066
AC 09066
DT 01-NC
DT 05-JU
DE Inhib
DE Prote GN Name=
GN Name=
GN NAME
OC ELUAR
OC Archo
OC Archo
OC Archo
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Best Local S
Matches 35
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EMBL; APH33430; AAG22970.1; -.

HSSP; Q13490; 10BH.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:0005515; F:protein binding; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity;

GO; GO:0006270; F:zinc ion binding; IEA.

GO; GO:000626; P:notein ubiquitination; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIR CHICK STANDARD; PR
Q90660; O57319;
O1-NOV-1997 (Rel. 35, Created)
O1-NOV-1997 (Rel. 35, Last seque
O5-JUL-2004 (Rel. 44, Last annot
Inhibitor of apoptosis protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PÉAM; PPÓ0653; BIR; 3.

PÉAM; PPO0051; CARD; 1.

PÉAM; PPO00097; ZÉ-C3HC4; 1.

PÉAM; PRO00091; ZÉ-C3HC4; 1.

SMART; SM00114; CARD; 1.

SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50209; ZFRING 2; 1.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 602 AA; 67326 MW; CC91
                                                                                                                                                                                                                                                                                                       protein..
Name=ITA; Synonyms=IAP1;
Name=ITA; Synonyms=IAP1;
Gallus gallus (Chicken).
Gallus gallus (Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasianinae;
                                                                                                                            MEDLINE=97101112; PubMed=8945639;
Digby M.R., Kimpton W.G., York J.J.,
"ITA, a vertebrate homologue of IAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Cloning and characterizat
of Apoptosis protein 1, 2,
BMC Genomics 3:5-5(2002)
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[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                              protein)
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PubMed=11860601;
                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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STRAIN=White leghorn; TISSUE=Embryonic fibroblast;
                             SEQUENCE FROM N.A.
                                                                                                                                                                                                             TISSUE=Spleen;
                                                                                                                                                                                                                                                                                    NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59 CYPGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | IPR001315; CARD.
| IPR011029; DEATH like.
| IPR001370; Prot inh 132
| IPR001841; Znf ring.
                                                                              Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WFPRCEYL 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and characterization of the rat homologues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                 15:981-988 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P:protein ubiqui
P:regulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F:ubiquitin-protein ligase activity; F:zinc ion binding; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
s protein (IAP) (Inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2, and 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 192; DB 2; Length 602 Pred. No. 3.3e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _I32_IAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC91385EEA62DE5A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>.</u> ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 genes.";
                                                                                                                                    that
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                                                                                                                            Connick T.E., that is express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           611
                                                                                                                                 ехргеввед
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
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                                                                                                                                                          Lowenthal J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cell apoptosis
                                                                                                                                    in
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                                                                                         Query Match
Best Local
                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPRO01370; BIR.
InterPro; IPRO01315; CARD.
InterPro; IPRO01315; CARD like.
InterPro; IPRO01841; Znf_ring.
Pfam; PF00653; BIR; 3.
Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
Pfam; PF00097; zf-C3HC4; 1.
PROSITE; PS01182; BIR REPEAT 1; 3.
PROSITE; PS01282; BIR REPEAT 2; 3.
PROSITE; PS01099; CARD; 1.
PROSITE; PS00518; ZF RING_1; FALSE PROSITE; PS000518; ZF RING_2; 1.
                                                                                                                              DOMAIN
EN FING
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oth cortical and medullary cells of the T lymphocyte lineage. Found both cortical and medullary cells of the thymus. Expressed a relatively high levels also in spleen, bursa, intestine and and at very low levels in testis, brain and skeletal muscle.

INDUCTION: High levels are induced within 4-8 hours of T-cel activation in spleen and thymus.

DOMAIN: The ring finger is important for its antiapoptotic e. SIMILARITY: Contains 3 BIR repeats.

SIMILARITY: Contains 3 BIR repeats.

SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                    CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      You M., Ku P.-T., Hrdlickova R., Bose H.R. Jr.; "ch-IAP1, a member of the inhibitor-of-apoptosis protein family, mediator of the antiapoptotic activity of the v-Rel oncoprotein. Mol. Cell. Biol. 17:7328-7341(1997).
                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                              Apoptosis;
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=98038801; PubMed=9372964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: Apoptotic suppressor.
SUBCELLULAR LOCATION: Predominantly nuclear.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to Ref.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q13490; 1QBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U27466; AAB48118.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AF008592;
1 YEARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
                                                 Similarity
                                                                                      30
176
262
446
446
564
27
150
169
1183
1190
1196
202
202
213
350
359
359
499
499
499
                                                                                                                                                                                                                                                                                                                                                                             Nuclear
                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB88044.1; -.
                                                                                                                                                                                                                                                                                                                                                               protein; Repeat; Zinc-finger.
97 BIR 1.
                                                                                                    69009 MW;
                                               49.7%;
                                                                                                BIR 3.

CARD.

RING-type.

RING-type.

P -> L (in Ref. 2).

Q -> H (in Ref. 2).

S -> F (in Ref. 2).

S -> F (in Ref. 2).

V -> L (in Ref. 2).

DD -> YY (in Ref. 2).

VN -> FT (in Ref. 2).

VN -> FT (in Ref. 2).

VX -> GQ (in Ref. 2).

VX -> GQ (in Ref. 2).

VX -> GQ (in Ref. 2).

VX -> DD (in Ref. 2).

VX -> D (in Ref. 2).

X -> L (in Ref. 2).

X -> L (in Ref. 2).

X -> C (in Ref. 2).

X -> C (in Ref. 2).
                                   Score 192; DB Pred. No. 3.4e 8; Mismatches
                                    8
                                                                                                                                                                                                                                                                                                                                                                                                   FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                                 BIR 2.
                                                                                         53FC9136F34EBDDD CRC64;
                                                               멂
                                                 .4e-14;
                                    22;
                                                             Length 611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiapoptotic effect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cytoplasmic according
                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           intestine and lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oncoprotein.";
                                                                                                                                                                      2).
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                                    2
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                                   Gaps
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262 HEARVKTFINWPTRIPVOPEOLADAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWIEHAK

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59 322

CYPGCKYL :| |:|| WFPRCEYL

66 329

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TRESULT IN THE PROPERTY OF THE
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Wilkinson J.C., Richter B.W.M., Wilkinson A.S., Burst Rumble J.M., Balliu B., Duckett C.S.;

PUIAF: a conserved inhibitor of apoptosis (IAP) inter that modulates caspase activation.";

J. Biol. Chem. 279:0-0(2004).

-I- FUNCTION: Acts by blocking cellular apoptosis rat preventing viral stimulation of apoptosis.

-I- SUBUNIT: Interacts with human PDCL3.

-I- SIMILARITY: Contains 2 BIR repeats.

-I- SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                        EMBL; L22564; AAB02610.1; -.
EMBL; U75930; AAC59034.1; -.
PIR; A53989; A53989.
HSSP; Q24306; 1JD4.
InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 2.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
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3_NPVOP
IAP3_NPVOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 46, Last annotation update)
25-JAN-2005 (Rel. 46, Last annotation update)
Apoptosis inhibitor 3 (IAP-3).
Name=IAP3; Synonyms=IAP;
Orgyia pseudotsugata multicapsid polyhedrosis virus (OpMNPV).
Orgyia pseudotsugata multicapsid polyhedrosis virus (OpMNPV).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINB=94187094; PubMed=8139034;

Birnbaum M.J., Clem R.J., Miller L.K.;

Birnbaum M.J., Clem R.J., Miller D.K.;

"An apoptosis-inhibiting gene from a nuclear polyhedrosis encoding a polypeptide with Cys/His sequence motifs.";

J. Virol. 68:2521-2528(1994).
                                                                                PROSITE; PS01282; BIR REPEAT 1; 2.

PROSITE; PS50143; BIR REPEAT 2; 2.

PROSITE; PS00518; ZF RING 1; FALSE NEG.

PROSITE; PS50089; ZF RING 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ahrens C.H., R
Rohrmann G.F.;
                                Apoptosis;
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polyhedrosis virus genome."
Virology 229:381-399(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The sequence of the Orgyia pseudotsugata multinucleocapsid nuclear polyhedrosis virus genome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=97271300; PubMed=9126251; DOI=10.1006/viro.1997, Ahrens C.H., Russell R.R., Funk C.J., Evans J., Harwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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Repeat; Zinc-finger.
18 84 BI
111 178 BI
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                                                                                                                                                                  PROSITE;
PROSITE;
PROSITE;
SEQUENCE
                                                                                                                                                                                                                                                                     Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases. EMBL; AY522332; AAS82685.1; -.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:0008276; P:anti-apoptosis; IEA.

GO; GO:0006916; P:anti-apoptosis; IEA.

GO; GO:0016577; P:protein ubiquitination; IEA.

InterPro; IPR001370; Prot_inh_I32_IAP.

InterPro; IPR001381; Znf_ring.
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SEQUENCE
                                                                                                                                                                                                                                                        SMART; SM00238; BIR; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shanghai GeneCore biotechnology Ltd; Xiulian A., Zhifang W., Bo W., Wei Z., Yuhu S., Mei H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ai X.L., Wang Z.F.,
Shi Y.H., He M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Agrotis segetum Granulosis Virus complete genome.";
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Xiulian A., Zhifang
Yuhu S., Mei H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=ORF53,IAP-1; ORFNames=AsGVgp053;
Agrotis segetum granulosis virus (AsGV) (Agrotis segetum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004
05-JUL-2004
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                                                                                                       Similarity
                                                                                                                                                                PS01282; BIR REPEAT 1; 1.
PS50143; BIR REPEAT 2; 2.
PS50089; ZF RING 2; 1.
269 AA; 31135 MW; C92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
ENRLESYKTWPVSIPLRPKELAAAGFYYTGHSDQVNCFYCGGGLRDWKTGDDPWQQHARW
                                EARIVTFGTWIYSV--NKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GeneCore Biotechnology Ltd.; Wang Z.F., Wang B., Zhang W.
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268 AA;
                                                                               49.0%;
llarity 47.8%;
Conservative 1;
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                                                                               Score 189; DB pred. No. 3.4e
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Last annotation update)
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; DF89175FDE85A708 CRC64;
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Wei Z.,
                                                                                                                                                                    C929C533465EEC51 CRC64;
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nes 21;
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                                                                                                                      Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F., Chunsheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J.H.,
                                                                                   Indels
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                                                                                 Gaps
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174
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175

PDKCLFL

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RESULT 29
BIR3_MOUSE
ID BIR3_MOUSE
AC 008863;
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X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

X Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

X Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

X Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

X Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

X Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,

X Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,

X Hopkins R.F., Jordan M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

X Hopkins R.J., Wallan N.B., Toshiyuki S., Carninci P., Prange C.,

X Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

X Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

X Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

X Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

X Hilalon B., Ketteman M., Madan A., Garcia B.M.,

X Hales Y., Touchman J.W., Green B.D., Dickson M.C.,

X Hales Y., Touchman J.W., Green B.D., Dickson M.C.,

X Hales Y., Touchman J.W., Green B.D., Dickson M.C.,

X Hales Y., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

X Hales Y., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

X Hales Y., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

X Hales Y., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

X Hales Y., Skalska U., Smailus D.B., Schnerch A., Schein J.E.,

X Hales Y. S., 
                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q921N0
Q921N0;
Q1-DEC-2001
Q1-DEC-2001
Q1-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01282; BIR_REPEAT_1; PROSITE; PS50143; BIR_REPEAT_2; SEQUENCE 374 AA; 41915 MW; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Birc3 protein.
Name=Birc3; Synonyme=Birc2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."; Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO:0005622; C:intracellular; IEA.
GO:0006916; P:anti-apoptosis; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGI:1197007; Birc3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PF00653; BIR; 3.
; SM00238; BIR; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q13490; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC011338; AAH11338.1;
                                                                                                                                                                                                                                                                               1 YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK 58
                                                                                                                                                                                                                                                                                                                                35;
                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                           WFPRCEYL 320
                                                                                                                                                                                       CYPCCKYL 66
                                                                                                                                                                                                                                      HAARIRTFSNWPSSALVHSQELASAGFYYTGHSDDVKCFCCDGGLRCWESGDDPWVEHAK 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 19, Created)
(TrEMBLrel. 19, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   II; TISSUE=Mammary tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Mammary tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata;
                                                                                                                                                                                                                                                                                                                                                    49.0%;
51.5%;
                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                 Score 189; DB 2; Length 374; Pred. No. 4.7e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                              ; 3.
; 3.
1D2B54C32D7E46F3 CRC64;
                                                                                                                                                                                                                                                                                                                                Mismatches
                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 374
                                                                                                                                                                                                                                                                                                                                Indels
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1 J.E.,
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                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                    Pfam; PF00653; BIR; 3.

Pfam; PF000679; CARD; 1.

Pfam; PF00097; zf-C3HC4; 1.

SMART; SM00238; BIR; 3.

SMART; SM00114; CARD; 1.

SMART; SM00114; RIMG; 1.

SMART; SM00184; RIMG; 1.

SMART; PS01282; BIR REPEAT 1; 3.

PROSITE; PS01282; BIR REPEAT 2; 3.

PROSITE; PS00209; CARD; 1.

PROSITE; PS00518; ZF RIMG 1; FALSE NEG.

PROSITE; PS005089; ZF RIMG 2; 1.
                                                                                                                                DOMAIN
ZN FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 3 (Inhibitor of apoptosis protein 1) (MIAP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Skeletal muscle;
MEDLINE=98110590; PubMed=9441758; DOI=10.1006/geno.1997.5059;
Liston P., Lefebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
"Genomic characterization of the mouse inhibitor of apoptosis protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Skeletal mu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; Q13490; 1QBH.
MGD; MGI:1197007; Birc2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=Birc3; Synonyms=Birc2, Iap1;
                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR011029; DEATH_like.
InterPro; IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001370; BIR.
InterPro; IPR001315; CARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                           253 HAARIRTFSNWPSSALVHSQELASAGFYYTGHSDDVKCFCCDGGLRCWESGDDPWVEHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                    U88908; AAC53531.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 genes.";
                                                    1 YEARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46:495-503(1997).
                                                                                                                                                         27
167
253
436
                                                                              Conservative
                                                                                                                             588 R:
67198 MW;
                                                                                                                                                         94
233
320
525
                                                                                          49.0%;
                                                                                                                                                                                               inc-finger.
                                                                                                                                                                                                                                                                                                                                                                    Znf_ring.
                                                                                                                                                          BIR 2.
BIR 3.
CARD.
                                                                                                                                RING-type.
; AD7F73E6849317D1 CRC64;
                                                                            Score 189; DB 1;
Pred. No. 7.5e-14;
9; Mismatches 22
                                                                                                     Length
                                                                               Indels
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7:
                                                                            Gaps
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RESULT 31
Q8UWD2
        CSGEGGGSS
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Best Local S
Matches 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPRO01841; Znf Ting.

Pfam; PF00653; BIR; 3.

Pfam; PF00619; CARD; 1.

Pfam; PF00097; Zf-C3HC4; 1.

SMART; SM00134; CARD; 1.

SMART; SM00114; CARD; 1.

SMART; SM00114; CARD; 1.

SMART; SM00182; BIR REPEAT 1; 2.

PROSITE; PS01282; BIR REPEAT 2; 3.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS500143; BIR REPEAT 2; 3.
                                                                                                                                     Q8UWD2;
Q8UWD2;
01-MAR-2002
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U1-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Inhibitor of apoptosis protein-1.
NamecIAP-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q804E2;
Q804E2;
01-JUN-2003
01-JUN-2003
Name=birc3; Synonyms=iap1;
Brachydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY184377; AAO24632.1; -.
HSSP; 013490; 1QBH.
GO; GO:0000151; C:ubiquitin ligase complex; IEA.
GO; GO:0000151; F:protein binding; IEA.
GO; GO:000512; F:protein binding; IEA.
GO; GO:0004842; F:ubiquitin-protein ligase activity;
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006516; P:anti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
GO; GO:0042981; P:regulation of apoptosis; IEA.
                                                                                      Iap1.
                                                                                                                 01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30; GU: VUNEZCE, 12R001315; CARD. InterPro; IPR001315; CARD. InterPro; IPR011029; DEATH like. InterPro; IPR001370; Prot inh I32_IAP. INTERPROPRED INTERPROPRED INTERPROPRED INTERPROPRED INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT INTERPORT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Praveen K., Leary J.H. III, Evans D.L., Jaso-Friedmann Submitted (NOV-2002) to the EMBL/GenBank/DDBJ database.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Actinopterygii; Neopterygii; Teleostei; Ictaluridae; Ictalurus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ictalurus punctatus (Channel catfish).
Eukaryota; Metazoa; Chordata; Craniata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                        330 FPRCEYL 336
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                                                                                                                                                                                                                                                                                                                                                                                                        60 хьсскиг 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 EARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               EERLLTFVNWPARIPVRPDQLAKAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAKW 329
                                                                                                            (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49.0%;
                                                                                                            26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10,
                                                                                                         Created)
Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 189; DB 2;
Pred. No. 7.7e-14;
0; Mismatches 21
(Danio rer
Craniata;
                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                              rerio).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
Ostariophysi; Siluriforme
     Vertebrata;
                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                         update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IEA.
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ACCCCL RRP DR RP DR RRP DR RP DR RRP DR RP DR RRP D
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Q7T0K2
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Best Local S
Matches 34
Ens K.M., Valdimarsson G.;
Submitted (MAR-2003) to the EMBL/GenB
-!- SIMILARTY: Contains 1 RING-type
EMBL; AY247786; AAP04483.1; -.
HSSP; P98170; 1130.
ZFIN; ZDB-GENE-030825-6; birc3.
                                                                                                                                                                                                                                                                                                                                          Q7TOK2 PRELIMINARY; PRT; 647 AA.
Q7TOK2;
01-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
11hibitor of apoptosis protein.
                                                                                                                                                                                                                        Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniform
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GO; GO:0005151; F:protein binding; IEA.
GO; GO:0004842; F:ubiquitin-protein ligase activity;
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
GO; GO:0042981; P:regulation of apoptosis; IEA.
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MEDLINE=20373792; PubMed=10917738;
Inohara N., Nunez G.;
Inohara N., Nunez G.;
"Genes with homology to mammalian apoptosis regulators identified zebrafish.";
                                                                                                                                                                                                                                                                                                                                Name=birc3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZFIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- SIMILARITY: Contains 1 RIN EMBL; AF442500; AAL33679.1; -- HSSP; Q13490; 1QBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
Inohara N., Nunez G.;
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Cyprinidae; Danio.
NCBI_TaxID=7955;
                                                                                                                                                                                                   NCBI_TaxID=7955;
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                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340 FPRCEYL 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60 YPGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC
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50.7%; Pre
---ive 10;
                                                                                                     the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              e EMBL/GenBank/DDBJ databases.
RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 189; DB 2;
Pred. No. 7.9e-14;
0; Mismatches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5B68CEB6A87C8A95 CRC64;
                                                                                zinc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
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                                                                                                                                                                                                                                                  Cypriniformes;
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RESULT 33
GEZM9
ID ZOZM9
AC Q6ZM9
AC Q6ZM9
AC Q6ZM9
AC Q6ZM9
DT 05-JT
DT 05
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Best Loc
Matches
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GO; GO:0004842; F:ubiquitin-protein ligase
GO; GO:0004842; F:ubiquitin-protein ligase
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0016916; P:anti-apoptosis; IEA.
GO; GO:0016916; P:anti-apoptosis; IEA.
GO; GO:00162981; P:regulation of apoptosis;
InterPro; IPR001315; CARD.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
Pfam; PF00653; BIR; 3.
Pfam; PF00697; zf-C3HC4; 1.
SMART; SM00114; CARD; 1.
SMART; SM00118; RING; 1.
SMART; SM00118; RING; 1.
SMART; SM001184; RING; 1.
SMART; SM001184; RING; 1.
PROSITE; PS01282; BIR REPEAT_1; UNKNOWN_2.
PROSITE; PS01282; BIR REPEAT_2; 3.
PROSITE; PS01289; ZRRG; 2.
PROSITE; PS0089; ZPRING_2: 1.
Metal-binding; Zinc; Zinc-Finger.
SEQUENCE 647 AA; 72183 MW; 88DBBAPE9277
                            InterPro; IPR001315; CARD.
InterPro; IPR011029; DEATH like.
InterPro; IPR001370; Prot_Inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
Pfam; PF00053; HIR; 3.
Pfam; PF000619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q6ZM93 PRELIMINARY; PRT; 654 AA. Q6ZM93; Q5ZM93; Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
SI:bZiP14.6.2 (Baculoviral IAP repeat-containing 3).
                                                                                                                                                                                                                                                                    Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Contains 1 RING-type zinc finger.
EMBL; AL627325; CAE47763.1; --
GO: GO:0000151; C:ubiquitin ligase complex; IEA.
GO: GO:0005515; F:protein binding; IEA.
GO: GO:000842; F:ubiquitin-protein ligase activity; IEA.
GO: GO:0008270; F:zinc ion binding; IEA.
GO: GO:0006316; P:anti-apoptosis; IEA.
GO: GO:0016567; P:protein ubiquitination; IEA.
GO: GO:0014281; P:regulation of apoptosis; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
CCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. Clark G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=birc3;
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GO:0005515; F:protein binding; IEA.
GO:0004842; F:ubiquitin-protein ligase activity;
GO:0008270; F:zinc ion binding; IEA.
GO:0008270; F:zinc ion binding; IEA.
GO:0006916; P:anti-apoptosis; IEA.
GO:0016567; P:protein ubiquitination; IEA.
GO:0042981; P:regulation of apoptosis; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EERLLTFVNWPSRIPVRPDQLAKAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAKW
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RESULT
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  RESULT 35
Q968T8
ID Q968T
AC Q968T
DT 01-DE
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Best Local
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yang G., Wang L., Wu X.;
Yang G., Wang L., Wu X.;
Submitted (SEP-2002) to the EMBL/GenBank/DDB.
SMBL; AX155274; AAN46650.1; -.
HSSP; Q24306; 1Q4Q.
GO; GO:0000151; C:ubiquitin ligase complex;
GO; GO:00004842; F:ubiquitin-protein ligase av
GO; GO:00008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006916; P:protein ubiquitination; IEA.
GO; GO:0016567; P:protein ubiquitination; IE.
InterPro; IPR001370; Prot inh I32 IAB.
InterPro; IPR001841; Znf_ring.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
Q968T8
Q968T8;
01-DEC-2001
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Q19MS31;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
Q1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
Q1-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Inhibitor of apoptosis protein.
Bombyx mori (Silk moth).
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PROSITE; PS01282; BIR REPEAT 1; UNKNOWN 2.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50089; ZFRING 2; 1.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 654 AA; 72995 MW; A12425D5E41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS01282; BIR REPEAT 1;
PROSITE; PS50143; BIR REPEAT 2;
PROSITE; PS50089; ZF RING 2; 1.
SEQUENCE 346 AA; 38849 MW; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea; Bombycidae; Bombyx.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=7091;
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                                                                                                                                                                              DRCAYV 249
                                                                                                                                                                                                                                                                               ARLATFKDWPRCMRQKPEBLAEAGFFYTGQGDKTKCFYCDGGLKDWESDDVPWEQHARWF
                                                                                                                                                                                                                                                                                                                              ARIVTFGTWIYSVNK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EARIVTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKC
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                                                                                                                                                                                                                                                                                                                                                                                Conservative
     (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66
                                                                                                                                                                                                                                                                                                                                                                                                       47.9%;
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                                                                                                                                                                                                                                                                                                              -EQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDPWDQHAKCY
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  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 189; DB
Pred. No. 8.2e
LO; Mismatches
                                                                                                                                                                                                                                                                                                                                                                          Score 185; DB 2;
Pred. No. 1.3e-13;
3; Mismatches 20
                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5450EB75F56A8486 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A12425D5E41A0259 CRC64;
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in ligase a
j; IEA.
                                                    346
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Best Local S
Matches 31
Holcik M., Lefebvre C.A., Hicks K., Korneluk R.G.;

"Cloning and characterization of the rat homologues of Apoptosis protein 1, 2, and 3 genes.";

BMC Genomics 3:5-5(2002).

-I- SIMILARITY: Contains 1 RING-type zinc finger.

BMBL; AF183431; AAG22971.1; -.

RMBL; AF183490; 10BH.

RSSP; Q13490; 10BH.

G0; G0:000151; C:ubiquitin ligase complex; IEA.

G0; G0:0004842; F:ubiquitin protein ligase activity; II

G0; G0:0004842; F:zinc ion binding; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GO; GO:000151; C:ubiquitin ligase complex; IEA.
GO; GO:000181; C:ubiquitin-protein ligase activity
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006916; P:zinc ion binding; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
IPfam; PP00653; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT_1; 2.
PROSITE; PS01282; BIR REPEAT_2; 2.
PROSITE; PS01282; BIR REPEAT_2; 2.
PROSITE; PS50089; ZF RING_2; 1.
SEQUENCE 346 AA; 38942 MW; 6CFC6C6468894C69 CR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ESE8, PRELIMINARY; PRT;
Q9ESE8, 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last seq
01-MAR-2004 (TrEMBLrel. 26, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1)
SEQUENCE FROM N.A.
MEDLINE=21240184; PubMed=11341966;
MEDLINE=20240184; PubMed=11341966;
MEDLINE=20240184; PubMed=11341966;
                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Inhibitor of apoptosis protein 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochim. Biophys.
EMBL; AF281073; A
                                                                                                                                                                                                                                                                                                        PubMed=11860601;
                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10116;
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Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2001
01-JUN-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bombyx mori (Silk moth)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Inhibitor of apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Cloning and characterization of an inhibitor of apoptosis protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36
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244 DRCAYV 249
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 ARIVTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ARLATFKDWPRRMRQKPEELAEAGFFYTGQGDKTKCFYCDGGLKDWESDDVPWEQHARWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bombyx mori."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66
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                                                                                                                                                                                                                                                                                                                                                                                                                   Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47.9%; Score 185; DB 2;
47.0%; Pred. No. 1.3e-13;
tive 13; Mismatches 20
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                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6CFC6C6468894C69 CRC64;
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Stennicke H.R., Hammock B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     589
                                 activity;
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PRESULT

Q90ZCG

ID QZCG

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SMART; SM00114; CARD; 1.

SMART; SM00114; CARD; 1.

SMORT; SM00184; RING; 1.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50209; ZFRING_2; 1.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 589 AA; 66750 MW; B4F7
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InterPro; IPR01312; DEATH like.
InterPro; IPR01370; Prot Inh I32 IAP.
InterPro; IPR01841; Znf_ring.
Pfam; PF00653; BIR; 3.
Pfam; PF00619; CARD; 1.
Pfam; PF00619; zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dong Z., Nich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09QZC6;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Inhibitor of apoptosis protein 2.
Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                       Pfam; PF00653; BIR; 3.
Pfam; PF00619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
                                                                                                           InterPro; IPR001315; CARD.
InterPro; IPR011029; DEATH like.
InterPro; IPR001370; Prot inh II
InterPro; IPR001841; Znf ring.
                                                                                                                                                                                                                 88888888
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Biochem. J. 364:413-421(2002)
Biochem. J. 364:413-421 (2002)
E-|- SIMILARITY: Contains 1 RJ
EMBL; AF190020; AF04585.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22020585; PubMed=12023884; DOI=10.1042/BJ20011431; Dong Z., Nishiyama J., Yi X., Venkatachalam M.A., Denton M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li S., Qiang M.;
"Gene promoter of apoptosis inhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                          SP; Q13490; 1QBH.

GC:0000151; C:ubiquitin ligase complex; IEA.

GC:0000515; F:protein binding; IEA.

GC:00004842; F:ubiquitin-protein ligase activity;

GC:0008270; F:zinc ion binding; IEA.

GC:0006516; P:anti-apoptosis; IEA.

GC:0016567; P:protein ubiquitination; IEA.

GC:0016581; P:regulation of apoptosis; IEA.
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; GO:0016567;
; GO:0042981;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P:anti-apoptosis; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P:regulation of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ptosis inhibitory protein IAP2: activation by severe hypoxia.";
                                                                                                                                         _inh_132_1AP
                                                                                                                                                                                                                                                                                                                                                                                                                                 RING-type
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Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
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RESULT OF PERSON OF PROPERTY O
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AS trausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Stomestein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Brownstein M.J., Weckernan K.J., Malek J.A., Gunarathe P.H.,
A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Whiting M., Madan A., Young A.C., Shevchenko Y., Butterfield Y.S.,
A Kraywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
A Kraywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
A Kraywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
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Best Local Similarity
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   GO; GO:000
GO; GO:000
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GO; GO:000
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05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                   Strausberg
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Name=Api2;
                                                                                                                                                                                                                                                                                                                                                                                                                                           and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A.
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                                                                                                                                                                                                                                                                                                                                                     TISSUE=Prostate;
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                        SIMILARITY: Contains 1 RING-type zinc finger.

MBL; BC062055; AAH62055.1; -

30; GO:0000151; C:ubiquitin ligase complex; IEA.

30; GO:0005515; F:protein binding; IEA.

30; GO:0004842; F:ubiquitin-protein ligase activit.

30; GO:0008270; F:zinc ion binding; IEA.

30; GO:0008270; F:zinc ion binding; IEA.

30; GO:0006916; P:protein ubiquitination; IEA.

30; GO:0016567; P:protein ubiquitination; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEPRCEFL 308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYPGCKYL
                                                                                                                                                                                                                                               , R.;
(NOV-2003) to the EMBL/GenBank/DDBJ
ARITY: Contains 1 RING-type zinc fing
   IPR001315;
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   CARD
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Last annotation updat
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Pred. No. 2.2e-13;
9; Mismatches 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                              99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; I
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                             activity;
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                                                                                                                                                                                                                                                                                             databases
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                                                                                                                                                IEA.
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RESULT 39
BIR2_MOUSE
ID BIR2_MOUSE
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Best Local S
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InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3:
Pfam; PF00619; CARD; 1.
Pfam; PF000619; Zf-C3HC4; 1.
SMART; SM00218; BIR; 3:
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS00128; BIR_REPEAT_1; 3:
PROSITE; PS01282; BIR_REPEAT_2; 3:
PROSITE; PS50143; BIR_REPEAT_2; 3:
PROSITE; PS50109; ZARD; 1.
Metal-binding; Zinc; Zinc-finger.
SEQUENCE 589 AA; 66846 MW; 526E
                                                                                                                                                          I and 2 years. , 1 and 2 years. Genomics 46:495-503(1997).

Genomics 46:495-503(1997).

With TNF receptor associated factors 1 and 2 (7 form an heteromeric complex, which is then reconstructed form an heterometric complex, which is then reconstructed form an heterometric complex, which is then reconstructed factor receptor 2 (TNFR2).
                      necrosis factor receptor 2 (TNFR2).

SIBUNIT: Interacts with SMAC and with PRSS25; these in inhibit apoptotic suppressor activity (By similarity).

SUBCELIGULAR LOCATION: Cycoplasmic (Potential).

TISSUE SPECIFICITY: Expressed in heart, brain, spleen, liver, skeletal muscle, kidney and testis.

SIMILARITY: Belongs to the IAP family.

SIMILARITY: Contains 3 BIR repeats.

SIMILARITY: Contains 1 CARD domain.

SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         062210; 008864; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation updat Baculoviral IAP repeat containing protein 2
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE=Skeletal muscle;
TISSUE=Skeletal muscle;
MEDLINE=98110590; PubMed=9441758; DOI=10.1006/geno.1997.5059;
Liston P., Lefebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
Liston P., Lefebvre T., Fong W.G., Xuan J.Y., Korneluk R.G.;
"Genomic characterization of the mouse inhibitor of apoptosis"
                                                                                                                                                                                                                                                                                                                                                        to baculoviral
Cell 83:1243-1:
                                                                                                                                                                                                                                                                                                                                                                      "The TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., AND PARTIAL SE
MEDLINE=96128127; PubMed=8548810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein 2) (MIAP2) (MIAP-2)
                                                                                                                                                                                                                                                                                                                                                                                                      Rothe M., Pan M.-G., Henzel W.J., Ayres T.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=Birc2; Synonyms=Birc3, Iap2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                                                                                                                                           83:1243-1252(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 YEARIVTEGTWIYS--VNKEQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSARMRTFLYWPSSVLVQPEQLASAGFYYVDHNDDVKCFCCDGGLRCWEPGDDPWIEHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; IPRO11029;
; IPRO01370;
; IPRO01841;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYPGCKYL
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SWISS-PROT entry

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It is

for commercial

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Matches 35
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RETURE PROJECT STATES 
                     SEQUENCE FROM N.A.

TISSUB-Lymph node;

Fan Z.S., Ao S.Z.;

Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AF207599; AAN73272.1; -.

HSSP; Q13490; 1QBH.

GO; GO:0005622; C:intracellular; IEA.

GO; GO:0005515; F:protein binding; IEA.

GO; GO:0006916; P:anti-apoptosis; IEA.

GO; GO:0042981; P:regulation of apoptosis; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q8IZZO PRELIMINARY; PRT; 534 AA.
Q8IZZO;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; L49433; AAC42078.1; -.
EMBL; U88909; AAC5532.1; -.
HSSP; Q13490; 1QBH.
MGD; MGI:1197009; Birc3.
GO; GO:0005515; F:protein bi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
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Homo sapiens (Human).
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InterPro; IPR001370; BIR.
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InterPro; IPR001370; Prot_inh_I32_IAP.
Pfam; PF00653; BIR; 3.
Pfam; PF00619; CAED; 1.
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
                                                                                                                                             PROSITE; PS01282; BIR_REPEAT_1;
PROSITE; PS0143; BIR_REPEAT_2;
PROSITE; PS50209; CARD; 1. _
SEQUENCE 534 AA; 60366 MW;
329 WEPRCEFL
                                               269 HAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAK 328
                      59 CYPGCKYL 66
                                                                  1 YBARIVTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAK
                                                                                              35;
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336
                                                                                                                                             60366 MW; 0403170475BE0872 CRC64;
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Pred. No. 3.5e-13;
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Search completed: June 15, 2005, 17:39:35 Job time: 115.5 secs

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Maximum Match 100%
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221.967 Million cell updates/sec
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Aay52703	Aaw69295	Aaw13546	Aaw19747	Aaw19582	Abp72159	Ado26592	Adb61813	Adb61833	Adb61830	Adk34975	Adb61829	Adi39821	Adb61832	Aae00367	Adb61831	Aae00366	Adr44576	Aau75747	Abg32417
Human cel	Human HIA	Human c-I	Human inh	Human apo	Inhibitor	Human API	Human inh	Zebra fis	Bovine in	Novel hum	Chicken i	Human NAI	Unidentif	Gorilla I	Gorilla i	Chimpanze	X-IAP BIR	Human Inh	Inhibitor

ALIGNMENTS

ADB61810 standard; protein; 66

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ADB61810;

04-DEC-2003 (first entry)

Human inhibitor of apoptosis (IAP) protein XIAP BIR3 domain.

ARESULT 1
ADB61810
ADB6180
AC ADB6
AC baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development, viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; adenovirus; inhibitor of apoptosis; IAP; XIAP; HIAP1; clAP2; HIAP2; clAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma; cervical cancer; uterine cancer; testicular cancer; semall cell lung carcinoma; uterine cancer; renal cell carcinoma; Wilm's tumour; human; BIR 3 domain.

Homo sapiens.

WO2003040172-A2

15-MAY-2003.

12-NOV-2002; 2002WO-CA001738.

09-NOV-2001; 2001US-0332300P. 08-APR-2002; 2002US-0370934P.

(AEGE-) AEGERA THERAPEUTICS INC

Boudreault A, Korneluk RG, Ľa Савве Е, Liston P;

WPI; 2003-513532/48.

Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating cancer and other neoplasms. œ

Disclosure; Fig 1A; 53pp; English.

This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in

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RESULT 2
ADP90805
ID ADP90
XX ADP9
XX ADP9
XX ADP9
XX Prot
KW Prot
KW Prot
KW Prot
KW Phar
XX Homo
XX PP HOJO
XX PP HOJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local
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                                                                              affinity support.
                                                                                                                                                                                                                                                                                              WPI; 2004-480677/45
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Pred. No. 1.7e-39;
Mismatches 0;
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Example 6; Page 46; 81pp; English

Example 3; Fig

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                            Novel polypeptide, a member of inhibitor of apoptosis family of proteins that is expressed in testes useful for modulating apoptosis in cells, particular cells involved in male fertility.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inhibitor of apoptosis protein; IAP; testis; TIAP; apoptosis; inhibitor; fertility; testicular cancer; male infertility; male birth control; X-linked inhibitor of apoptosis protein; XIAP.
                                                                                                                                                                                    N-PSDB; ABS52803
                                                                                                                                                                                                                                                                            Korneluk RG,
                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-1998;
29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-DEC-2001; 2001US-00024433.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG32418 standard; protein; 236
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                                                                                                                                                                                                                                                                                                                                        (KORN/) KORNELUK R G.
(LAGA/) LAGACE M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                         Lagace M;
                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0073001P.
99US-00239867.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note= "Encoded by nnn; start codon is illegible in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
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Pred. No. 3.1e-39;
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RESULT 4
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Best Local S
Matches 66
The invention relates to a transgenic fly whose genome comprises DNA encoding a polypeptide having the Abeta portion of human amyloid precursor protein (APP), fused to a signal sequence. The DNA sequence encodes a 123 (Abeta40) or 129 (Abeta42) amino acid sequence, given ithe specification. The DNA sequence is operably linked to a tissue-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A substantially pure TIAP polypeptide (I), a member of IAP (inhibitor of apoptosis) family of proteins that is expressed in the testes. (I) is useful for identifying a compound that modulates TIAP biological activity (I) is useful for increasing apoptosis in a cell, preferably a germ-line cell and for increasing fertility in an animal. (I) is useful for treating or preventing apoptosis which occurs as a part of testicular cancer and male infertility. TIAP may be manipulated for use as a male birth control. TIAP polypeptides and nucleic acid sequences also have diagnostic use in the detection or monitoring of conditions involving aberrant levels of apoptosis. The present sequence represents the amino acid sequence of X-linked inhibitor of apoptosis protein, XIAP
                                                                                                                                                                                                                                           New transgenic fly, containing DNA encoding an Abeta portion APP, useful for identifying agents which modulate the APP pat which can be used to treat Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Cohen D, Dengler UJ,
Reinhardt MWHM, Zusma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-APR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Neuroprotective; amyloid precurso:
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                                                                                                                                                                                    Example
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14-JUN-2001; 2001US-0298309P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein of APP related human homologue hCP35211.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APP pathway modulator; gene therapy.
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                                                                                                                                                                                                                                                                                                                                                               2002-315796/35.
DB; AAK99405.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOVARTIS AG.
NOVARTIS-ERFINDUNGEN VERW GES MBH.
                                                                                                                                                                                 4; Page 112; 129pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nootropic; transgenic fly; Alzheimer's disease; Abeta; protein; tissue-specific expression control; human AF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Finelli AL,
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Pred. No. 7.5e-39;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Freuler F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Konsolaki
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       specific expression control sequence. Expression of the sequence gives the fly an altered phenotype. The purpose of the invention is for identifying agents that inhibit or purpose of the invention and/or function of genes or encoded polypeptides which modify the APP pathway. The agent is a compound, triple helix DNA, antisense oligonucleotide, double stranded RNA molecule, ribozyme, or particularly an antibody. It is used to treat conditions such as Alzheimer's disease. The agent can be used as an APP pathway modulator or in gene therapy. This sequence represents the protein of the APP related human homologue hCP35211
                  Nucleic acid encoding an inhibitor of inhibit apoptosis in e.g. HIV or AIDS susceptibility to apoptotic disease.
                                                                                                                                                    04-AUG-1995;
22-DEC-1995;
                                                                                                                                                                                                                                                                                                   Domain
                                                                                                                                                                                                                                                                                                                                                                                                                    Apoptosis inhibitor; X-linked inhibitor of apoptosis protein; XIAP; HIV; AIDS; neurodegeneration; myelodysplastic syndrome; ischaemia; myocardial infarction; stroke; reperfusion injury;
                                                                    N-PSDB; AAT70836
                                                                                                      Korneluk RG,
                                                                                                                                                                                       05-AUG-1996;
                                                                                                                                                                                                                20-FEB-1997.
                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human apoptosis inhibitor XIAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 278 AA;
                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                            toxin-induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW19581
                                                                                                                              (UYOT-) UNIV
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                                                                               1997-154262/14.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; protein;
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ilarity 100.0%;
Conservative 0
                                                                                                                              OTTAWA.
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                                                                                                                                                                                                                                                                                                                                                                                                          liver disease; gene
                                                                                                       Mackenzie
                                                                                                                                                    95US-00511485
95US-00576956
                                                                                                                                                                                        96WO-IB001022
                                                                                                                                                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                             'label= Ring_zinc_finger
                                                                                                                                                                                                                                                                                                               label=
                                                                                                                                                                                                                                                                                       label= BIR-3
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                                                                                                       Baird
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Pred. No. 9e-39;
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                                apoptosis polypeptide - patients, and for detect
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                                 detection
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Claim 27; Page 68-70; 219pp; English

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Query Match
apoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative diseases, specially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver nasopharnyx, thyroid,central nervous system.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and M-HIAP-2 (AAW19581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW19587) and at least one BIR (baculovirus IAP repeat) domain (see also AAW19587) and at least one BIR (baculovirus deduced from the xiap gene (AAT70838) isolated from a human foetal brain cDNA library. IAP polypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, seleted from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease
                                                                                                                                                                                      Inducing apoptosis in proliferative mammalian cells with inhibitor or NAIP polypeptide - also methods for prognosis based on presence and NAIP, specifically applied to cancers involving p53 mutations.
                                                                                                                                                            Disclosure; Fig
                                                                                                                                                                                                                                                                                                          Korneluk R,
                                                                                                                                                                                                                                                                                                                                                                          13-FEB-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
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e disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein; apoptosis enhancer; NAIP IAP; therapy; cancer; human; XIAP
                                                                                                                                                            English.
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Pred. No. 1.8e-38;
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                                                                                                              This sequence represents the human XIAP protein. The invention relates to a method for screening a substance inhibiting the formation of a complex between XIAP and TAB1, in which X-linked inhibitor of apoptosis protein (XIAP), transforming growth factor-beta activated kinase 1(TAK1) binding protein 1(TAB1) and a substance to be tested are contacted with each
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          suggested that wild-type p53 suppresses transcription of the IAP genes). Transgenic animals are used for testing the effects of an oligonucleotides and for screening for the inhibitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAK1
cell
                                                                                                                                                                                                                                  Screening
                                                                                                                                                                                                                                                             N-PSDB; AAZ48862
                                                                                                                                                                                                                                                                                                                           13-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                       JP11326328-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; TAB1; XIAP; X-linked inhibitor of apoptosis protein; TGF-beta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human XIAP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAPO NAIP proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transforming
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        sforming growth factor-beta activated kinase 1; monocyte mig binding protein 1; extracellular matrix protein production; growth inhibitor; beta-amyloid protein deposition; nosuppression; Transforming growth factor-beta.
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                                                                                                                                                                                                                     a substance which inhibits combination of apoptosis protein.
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                                                                                                                                                                                           28-30; 43pp; Japanese.
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No. 1.8e-38;
                                                                                                                                                                                                                                    of the X-linked
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other and then the presence or formation of a complex between XIAP and TAB1 is detected. The substance can be used as a drug for extracellular matrix protein production enhancement, cell growth inhibition, monocyte migration, physiologically active substance induction, immunosuppression and beta-amyloid protein deposition. A substance inhibiting the formation of a complex between TAB1 and XIAP as well as between XIAP and TGF-beta

immunosuppression, iting the formation

(Transforming growth factor-beta) type I and/or type

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                                                                                                                                                                    The present invention relates to antisense oligonucleotides designed to inhibit expression of the human X-linked inhibitor of apoptosis (the present sequence). Modified phosphorothicate 2'-MOS oligonucleotides are more effective inhibitors than unmodified oligonucleotides. The oligonucleotides may be used to inhibit X-linked inhibitor of apoptosis expression in cells and tissues in vitro. The oligonucleotides are also useful for treating animals or humans, prone to a disease associated with X-linked inhibitor of apoptosis. The oligonucleotides may also be used
                                                                                                                                                                                                                                                                                                                     Antisense compound useful for research reagents, diagnostics, prophylaxis and for treating disorders associated with X-linked inhibitor of apoptosis, modulates expression of X-linked inhibitor of apoptosis.
                                                                                                                                Sequence 497
                                                                                                                                                                                                                                                                                             Example 13;
                                                                                                                                                                                                                                                                                                                                                                                                                   Bennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiinflammatory; cytostatic; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-linked inhibitor of apoptosis; XIAP; hILP; MIHA; U45880; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human X-linked
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                                          YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
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                          YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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Α,
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                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                   Ackermann EJ;
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                                                                             Score 389; DB 3;
Pred. No. 1.8e-38;
; Mismatches 0;
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                                                                                                       Length
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                                                                               Indels
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                                                                                                         497;
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ABG65663

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ABG6

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                                                                                                                                                                                                                                                                                                                                                           The invention relates to an inhibitor of apoptosis (IAP) antisense CC nucleic acid (I) that inhibits IAP biological activity, regardless of length of the antisense nucleic acid, the IAP proteins may be mouse or CC length of the antisense nucleic acid, the IAP proteins may be mouse or CC composition comprising a mammalian IAP antisense molecule and a method of cenhancing apoptosis in a cell, comprising administering a negative cregulator of the IAP anti-apoptotic pathway to the cell. The IAP cantisense inhibitor is useful for enhancing apoptosis in a cell in a proliferative disease. The method is useful for treating a patient disgnosed with a proliferative disease like cancer. The IAP antisense molecule is useful to treat, ameliorate, improve, conditions where apoptosis is involved or implicated (e.g. conditions where apoptosis is involved or implicated (e.g. embryonic development, viral pathogenesis, autoimmune disorders, neurodegenerative diseases, multiple sclerosis, lupus erythematosus and infection by herpes virus, pox virus and adenovirus). The present sequence is a human IAP
                                                                                                                                     Matches
                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; antisense; inhibitor of apoptosis; HIAP1; HIAP2; XIAP; cytostatic; cancer; ovarian cancer; adenocarcinoma; lAmpihoma; IAP; pancreatic cancer; embryonic development; viral pathogenesis; autoimmune disorder; neurodegenerative disease; multiple sclerosis; lupus erythematosus; herpes virus infection; pox virus infection; adenovirus infection;
                                                                                                                                                                                                                                                                      Sequence 497 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 12; Fig 1; 135pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-479562/51.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG65663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Korneluk RG, Lacasse E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-SEP-2000; 2000US-00672717
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200226968-A2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          proliferative disease.
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                                                                                                                                                                        Local
                                                                                                                                     66;
                                                                                                                                                                                                                                                                                                                                     sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AEGERA THERAPEUTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UNIV OTTAWA
                                                                                                                                                                        Similarity
   YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                          YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                 100.0%;
llarity 100.0%;
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baird S,
                                                                                                                                     0
                                                                                                                                 Score 389; DB 5;
Pred. No. 1.8e-38;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 XIAP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Young
                                                                                                                                                                                                    Length 497;
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                                                                                                                                     Gaps
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RESULT 10
ADB80961
ID ADB80
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ADB800
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ADB800
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ADB800
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RING-
PF 31-JU
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PR 31-JU
PR 31-JU
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PR 1-JU
RROT
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RPI;
DR WPI;
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RPI Green
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                                                                                                                                                                                                                         Query Match
Best Local S
Matches 66
                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a novel isolated protein complex comprising a RING-SH 3 polypeptide and a polypeptide selected from a Gag protein, a Gag late domain, PI3K, actin, myosin, Hap60, Hap70, Hsp90, STAM1, STAM2A, STAM2B, VHS-UIM, a GTPase, an E2 enzyme, teg101, a cullin, RING-SH, and a clathrin. The novel protein complex has virucide activity and can be used to treat disorders as part of a vaccime. The protein complex and composition are useful for detecting cells infected with a virus, for identifying agents having antiviral activity, and for treating viral disorders caused by retroviruses, rhabdoviruses, or filoviruses. This sequence is a protein comprising the RING-SH complex of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated protein complex comprising a RING-SH 3 polypeptide and another polypeptide, useful for detecting cells infected with a virus, and for treating viral disorders caused by retroviruses, rhabdoviruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hsp70; Hsp90; STAM1; STAM2A; STAM2B; VHS-UIM; GTPase; E2 enzyme; tsg101; cullin; RING-SH; clathrin; virucide; vaccine; antiviral; retrovirus; rhabdovirus; filovirus.
                                                                                                                                                                                                                                                                                                                                        Sequence 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-JUL-2001; 2001US-0308958P.
09-NOV-2001; 2001US-0345846P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or filoviruses.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-DEC-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unidentified.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB80961 standard; protein;
325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2003-393509/37.
                                                                                                            265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   325
                                                    61
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                                                                                                                                            1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                               66;
                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H,
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                                            PGCKYL
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                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                        ₽,
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                                                                                                                                                                                                                         100.0%; (
100.0%; )
htive 0;
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                                                                                                                                                                                                                                                   Score 389; DB 7;
Pred. No. 1.8e-38;
                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alroy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  35
                                                                                                                                                                                                                                                                           Length 497;
                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                         Gaps
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RESULT 11 ADI39804

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RESULT 12
ADH74639
ID ADH74
XX ADH74
XX ADH74
XX IS-AP
AC ADH74
XX IS-AP
XX
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proteins (ilp) and polynucleotides encoding such proteins. Sequences of the invention are useful for inhibiting or stimulating apoptosis in target cells or for treating certain cancers. They are also useful in the immortalisation of cells for culture, for inhibiting the activation of cysteine protesses and to sustain host cell survival following viral infection. The ilp may also be used as a marker in gel separation procedures or as a standard in protein concentration determinations. The present sequence is human inhibitor of apoptosis-like protein.
Biomarker; prostate neoplastic condition; inhibitor of apoptosis; IAP; XIAP; X chromosome-linked inhibitor of apoptosis; cIAP1; cIAP2; prostate cancer; human.
                                                                                                            Human XIAP polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New inhibitor of apoptosis-like protein (ilp) and polynucleotide encoding ilp, useful for inhibiting or stimulating apoptosis in target cells, treating certain cancers, or sustaining host cell survival following
                                                                                                                                                                          15-APR-2004
                                                                                                                                                                                                                                                                                       ADH74639 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 497 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             viral infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAY-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytostatic; virucide; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human inhibitor of apoptosis-like protein (ilp).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-APR-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ARCH-) ARCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                     325
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                  PGCKYL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention relates to inhibitor of apoptosis (iap)-like
                                                                                                                                                                    (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEV CORP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9608-00657759
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                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42pp; English
                                                                                                                                                                                                                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 389; DB 7;
Pred. No. 1.8e-38;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 497;
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RESULT 13
ADL70166
ID ADL70
XX ADL70
XX ADL70
XX 20-MA
DT 20-MA
XX Human
XX Human
XX Human
XX Homo
PN WO200
PN WO200
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to a method for identifying a biomarker that is diagnostic for the survival of patient with a prostate neoplastic condition. The method comprises measuring the level of inhibitor of apoptosis (IAP) polypeptide chosen from chosen from XIAP (X chromosomelinked inhibitor of apoptosis), cIAP1 and cIAP2 in a neoplastic prostate cell-containing sample from patients, and identifying correlation between the level of IAP8 in the sample, where the correlation of an IAP with survival in the patients indicates IAP as a biomarker diagnostic. The method is useful for the prognosis of prostate neoplastic conditions such as prostate cancer. The method is efficient in determining the prognosis while the patient is still at an early stage of disease, and in monitoring the effectiveness of a particular treatment in a prostate neoplastic condition. The present sequence represents human XIAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 497
                                                                                                                     gene therapy; gene silencing
                                                                                                                                      Human; inhibitor of apoptosis; IAP; XIAP; Hodgkin's disease; cytostatic;
                                                                                                                                                                    Human X chromosome linked inhibitor of apoptosis (XIAP).
                                                                                                                                                                                                        20-MAY-2004
                                                                                                                                                                                                                                                                        ADL70166 standard; protein; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; SEQ ID NO 2; 42pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Identifying biomarker that is diagnostic for survival of a patient with prostate neoplastic condition by measuring level of integrin associated protein in sample, and identifying correlation of the level in sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed JC, Krajewski S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-FEB-2002; 2002US-0356956P
                                                     WO2004017991-A1
                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-FEB-2003; 2003US-00366307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003224399-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KRAJ/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (REED/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2004-141816/14.
DB; ADH74638.
                                                                                                                                                                                                                                                                                                                                                                                                                                  265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
                                                                                                                                                                                                                                                                                                                                                                                              61 PGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REED J C.
KRAJEWSKI S.
                                                                                                                                                                                                                                                                                                                                                               PGCKYL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                              66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 389; DB 8; 100.0%; Pred. No. 1.8e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
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RESULT 14
ADP23982
ID ADP23
XX ADP23
XX ADP23
XX ADP23
XX PRO
DE PRO P
XX PRO
XX PRO
XX PRO
XX PRO
XX PRO
XX PRO
XX OSTEC
XW OSTEC
XX OII-00
XX OI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is the protein sequence of human X chromosome linked CC inhibitor of apoptosis (XIAP). The invention is based on the discovery that IAPB, e.g. XIAP, are constitutively overexpressed in both Hodgkin's Lymphoma (HL)-derived B-cell lines and in primary HL tissues, and that in B-cell lines they are associated with and inhibit in particular caspase-CC all sased on this finding, the invention provides a new therapy of HL, which is based on inhibitors of IAPs, especially XIAP, that reduce or celiminate the caspase inhibiting activity. The approach leads to the restoration of apoptotic mechanisms, which result in an increased number CC feell death events in malignant HL cells. Since IAPs, in particular XIAP, are not overexpressed in normal tissues, the approach provides a selective therapy for HL. Suitable IAP inhibitors include molecules that reduce the level of IAP mRNA, reduce the level of the IAP to a caspase or reduce the biological activity of the IAP, e.g. an antisense nucleic acid, short interfering RNA (siRNA), expetidements anti-IAP antibody, anti-IAP aptamer, small molecule, peptide or peptideminetic. Diagnostic methods for the detection of HL using IAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                        21-MAY-2004.
                                                                                                                                                                                                                                                                                                                                 antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                PRO; antiinflammatory; antiarthritic; antirheumatic; immunosuppressive; osteopathic; antidiabetic; dermatological; antipsoriatic; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO polypeptide SEQ ID NO:1160.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADP23982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADP23982 standard; protein; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 497 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 specific agents are also provided.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 11; SEQ ID NO 2; 61pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kroenke M, Kashkar H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-AUG-2002; 2002DE-01037139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUL-2003; 2003WO-EP007889.
                                                                                                                                                                                                      WO2004041170-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       325 PGCKYL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                 hepatotropic; respiratory;
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Pred. No. 1.8e-38;
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                                                                                                                                                                                                                                                                                                                                 gene
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                                                                                                                                                                                                                                                                                                                                     therapy; immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 497;
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01-NOV-2002; 2002US-0423394P 30-OCT-2003; 2003WO-US034312

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ADB61827
ID ADB61
XX ADB61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local (
baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New PRO polypeptides and polynucleotides, useful for treating e.g. erythematosus, rheumatoid arthritis, diabetes mellitus, immune-mediated renal disease, or demyelinating diseases of the central or peripheral
                                                                                                         Rat inhibitor
                                                                                                                                                 04-DEC-2003
                                                                                                                                                                                                                           ADB61827 standard; protein; 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 497
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH ) GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     invention relates to
                                                                                                                                                                                                                                                                                                                                                                                                                 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66;
                                                                                                                                                                                                                                                                                                                                                                         61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      system.
                                                                                                                                                                                                                                                                                                                                                                                                       YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDFWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 1160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schoenfeld J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                             (first entry)
                                                                                                     of apoptosis (IAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a novel isolated nucleic acid and the t. A protein of the invention has
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 389; DB 8;
Pred. No. 1.8e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                     protein
                                                                                                     XIAP BIR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Williams PM,
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                                                                                                     domain.
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RESULT 16
AAW19745
ID AAW19

AAW19745 standard;

protein;

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PGCKYL

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This invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC length of less than 100 amino acids and capable of forming a complex with CC length of domain. The apoptosis pathway is known to play a critical role in CC embryonic development, viral pathogenesis, cancer, autoimmune disorders CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (CC example systemic lupus erythematosis and multiple sclerosis) and viral cinfections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy cterminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC which are proteases involved in the initiation of apoptosis. Compounds which inhibit the activity of IAPs may therefore have cytostatic activity chrough the enhancement of apoptosis. The polypeptides of the invention care andidate peptide ligands for binding to the BIR domain of IAPs. They may be useful for the treatment of cancer and other neoplasms, such as Cleukaemias, colon carcinoma, cervical cancer, terrinoma such as CC leukaemias, colon carcinoma, cervical cancer, terrinoma.
                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                      cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma and Wilm's tumour, and for enhancing apoptosis. The present sequence is that of the rat inhibitor of apoptosis (IAP) protein XIAP BIR3 domain which was used to demonstrate homology to human IAP protein BIR domains to which the peptides of the invention are targeted to bind.
                                                                                                                                                                                                                                                                                                                                                          Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Polypeptide capable of forming a cobaculovirus inhibitor of apoptosis
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caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma;
cervical cancer; uterine cancer; testicular cancer;
small cell lung carcinoma; uterine cancer; renal cell carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 1B; 53pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
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HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAY-2003
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                                                                                                               1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                  Similarity
   PGCKYL
                                                                          YDARIVIFGTWLYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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   66
                                                                                                                                                                                                                                              96.9%;
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Pred.
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                                                                                                                                                                                                                                              377; DB 7
No. 5e-38;
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RESULT 17
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                   Isolated protein homologues of viral inhibitors of apoptosis modulate apoptosis for treatment of degenerative, infectious auto:immune diseases and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
Region
            AAW19584 standard; protein; 496
                                                                                                                                                                                                                          Sequence 496 AA;
                                                                                                                                                                                                                                                                                                                                                                           Claim 7; Page 44-47; 136pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-350966/32.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MIHA; degenerative disease; infectious disease; autoimmune disease; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMRA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy; diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mouse inhibitor of apoptosis protein homologue
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                                                                                                                                                                                       Local Similarity
                                                                                                                          264
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                                                                                                                          YEARIVTFGTWTSSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                        YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
                                                                                                  PGCKYL 66
                                                                                                                                                                          Conservative
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163. .230
/label= BIR
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/label= RJ
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                                                                                                                                                                                    94.6%;
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                                                                                                                                                                        Score 368; DB 2;
Pred. No. 6.3e-36;
0; Mismatches 3
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                                                                                                                                                                               Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and M-HIAP-2 (AAMU3581-86) are a new class of mammalian proteins that are inhibitors of apoptosis (IAP) and which are characterised by the presence of a ring zinc finger domain (see also AAW19587) and at least one BIR (baculovirus IAP repeat) domain (see also AAW19587) and at least one BIR (baculovirus deduced from the m-xiap gene (AAT70839) isolated from a mouse embryo cDNA library. The IAP olypeptides can be expressed in host cells (in vitro or in vivo) and used in methods for treating diseases and disorders involving apoptosis, esp. in a human diagnosed as HIV-positive or as having AIDS, a neurodegenerative disease, a myelodysplastic syndrome or an ischaemic injury, seleted from myocardial infarction, stroke, reperfusion injury, or a toxin-induced liver disease
                                                                                                                                                                                                                                                                                                                                                                                   Nucleic acid encoding an inhibitor of inhibit apoptosis in e.g. HIV or AIDS susceptibility to apoptotic disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
Domain
                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                         Claim 27; Page 79-80; 219pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-AUG-1995;
22-DEC-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Korneluk RG,
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                                                                                                                    Local
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DB; AAT70839.
 324
                       61
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                                                                                                      63;
                                                                                                                    Similarity
                                                                   YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                       PGCKYL 66
                                                    YEARIVTEGTWIYSVNKEQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                          496 AA;
                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTTAWA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mackenzie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  liver disease; gene therapy; diagnosis.
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95US-00576956
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/label= Ri
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264. .329
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                                                                                                                 94.1%;
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                                                                                                   Score 366; DB 2; 1
Pred. No. 1.1e-35;
1; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                 apoptosis polypeptide - used to patients, and for detection of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liston
                                                                                                                               Length 496;
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RESULT 19
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AC ABG65
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AAW69297
                                                                                                                                                                                                                                                                                                       This sequence is the murine XIAP protein, which is a inhibitor of Capoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative disease, specially cancers of covary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NAIP proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is suggested that wild-type p53 suppresses transcription of the IAP or NAIP genes). Transgenic animals are used for testing the effects of antisense oligonucleotides and for screening for the inhibitors
                                                                                                                                                                                                                            Query Match
Best Local S
Matches 63
              ABG65666;
                                          ABG65666 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inducing apoptosis in proliferative mammalian cells with inhibitor or NAIP polypeptide - also methods for prognosis based on presence and NAIP, specifically applied to cancers involving p53 mutations.
                                                                                                                                                                                                                                                                                  Sequence 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 4; 147pp; English.
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8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Korneluk R, Mackenzie
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                                                                                                                                                                                 1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
                                                                                                                                                                                                                                         Similarity
                                                                                                                                        PGCKYL
                                                                                                                                                                YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                               PGCKYL 329
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                                                                                                                                                                                                                                                                                  AA;
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                                         protein; 496 AA.
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95.5%;
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1; Mismatches
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                                                                                                                                                                                                                                         366; DB 2;
No. 1.1e-35;
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                                                                                                                                                                                                                                                   Length 496
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                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer; ovarian cancer; adenocarcinoma; lymphoma; IAP; pancreatic ciembryonic development; viral pathogenesis; autoimmune disorder; neurodegenerative disease; multiple sclerosis; lupus erythematosus; herpes virus infection; pox virus infection; adenovirus infection; proliferative disease.
                                                                                                                                                                                                                                                                                                     Sequence 496 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 12; Fig 4; 135pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-2001; 2001WO-CA001379.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse; antisense; inhibitor of apoptosis; HIAP1; HIAP2; XIAP; cytostatic; cancer; ovarian cancer; adenocarcinoma; lymphoma; IAP; pancreatic cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Korneluk RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-SEP-2000; 2000US-00672717
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DB; ABK93872.
                                                                                                                                                                   264
                                                                                                                                61
                                                                                                                                                                                                                                     63,
                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                     sequence
                                                                                                                                                                 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                                                                                                                      YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                 PGCKYL 329
                                                                                                                                PGCKYL 66
                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                   94.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baird
                                                                                                                                                                                                                                                 Score 366; DB 5;
Pred. No. 1.1e-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 XIAP.
                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Holcik M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Young
                                                                                                                                                                                                                                                                 Length 496;
                                                                                                                                                                                                                                   Indels
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                                                                                                                                                                                                                                  Gaps
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ADB61828 standard; protein;

66 AA

(first entry)

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                                                                                                                                                                CC embryonic development, viral pathogenesis, cancer, autoimmune disorders CC and neurodegenerative diseases. The failure of the apoptotic response has CC been implicated in the development of cancer, autoimmune disorders (CC example systemic lupus erythematosis and multiple sclerosis) and viral CC infections (including herpes virus, poxvirus and adenovirus. The CC infections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CC (IAP2)) and HIAP2 (CIAP1) all posses three BIR domains and carboxy CC terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC (IAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy CC through the enhancement of apoptosis. The polypeptides of the invention CC are candidate peptide ligands for binding to the BIR domain of IAPs. They CC usakeemias, colon carcinoma, cervical cancer, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma CC and Wilm's tumour, and for enhancing apoptosis. The present sequence is that of the mouse inhibitor of apoptosis (IAPs) protein XIAP BIR3 domains CC that of the mouse inhibitor of apoptosis (IAP) protein BIR domains CC that of the mouse inhibitor of apoptosis (IAP) protein BIR domains CC that of the poptides of the invention are targeted to bind.
                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating cancer and other neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma; cervical cancer; uterine cancer; testicular cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 small cell lung carcinoma; uterine cancer; renal cell carcinoma;
Wilm's tumour; BIR 3 domain; mouse; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 1B; 53pp; English.
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                                                                                                                                Sequence 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse inhibitor of apoptosis (IAP) protein XIAP BIR3 domain.
1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                Similarity
                                                                                                                                ξ
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                                                                90.5%;
                                         Score 352; DB 7;
Pred. No. 5.5e-35;
1; Mismatches 4
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                                           4.
                                                                                    Length 66
                                         Indels
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                                           Gaps
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RESULT 21 ADB61820 ID ADB6

ADB61820 standard; protein; 66 AA.

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RESULT 21
ABP72157
ID ABP7217
AC ABP72
AC Inhih
KW Iymph
AC WO200

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                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis protein MIAP3. The invention provides a nucleic acid, such as an ancisense oligonucleotide, which specifically hybridises to a nucleic acid encoding an inhibitor of apoptosis protein, especially MIAP2, MIAP3, CIAP1, CIAP2 and XIAP. A claimed method for inducing a cell's death comprises contacting the cell with the nucleic acid under conditions permitting the nucleic acid to enter the cell, especially the use of a vector, liposome, or a mechanical or electrical means. The method is used to treat acute lymphocytic leukaemia, acute myelogenous leukaemia, lung cancer, breast cancer, ovarian cancer, prostate cancer, lymphoma, Hodgkin's disease, malignant melanoma, neuroblastoma, renal cell carcinoma and squamous cell carcinoma (all claimed)
                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is the protein sequence of murine inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 15A; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid encoding an inhibitor-of-apoptosis protein, useful for treating cancer, neurodegenerative disorder or cardiomyopathy.
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lymphoma; neuroblastoma; carcinoma; melanoma; cytostatic; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse inhibitor of apoptosis protein MIAP3
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                                                                                                                         264 YEARIVTFGTWTSSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
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                                                                                                                                                                                                                                                  61;
                                                                                                                                                                               1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY
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                                                                                                                                                                                                                                                                           Similarity
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                                                               PGCKYL
                                                                                                                                                                                                                                                                                                                                                                     496 AA;
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PGCKYL 329
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                                                                                                                                                                                                                                                                           90.5%;
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Pred.
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                                                                                                                                                                                                                                                                        352; DB 6;
No. 5.6e-34;
                                                                                                                                                                                                                                                                                                        Length 496;
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CC Initial invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC (BIR) domain. The apoptosis pathway is known to play a critical role in CC embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response has CC been implicated in the development of cancer, autoimmune disorders (for CC example systemic lupus erythematosis and multiple sclerosis) and viral control of infections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy cterminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC (CIAP2) and HIAP2 (CIAP1) all posses three BIR domains to the sentancement of apoptosis. The polypeptides of the invention care candidate peptide ligands for binding to the BIR domain of IAPs. They be useful for the treatment of cancer and other neoplasms, such as CC enters, small cell lung carcinoma, cervical cancer, uterine cancer, testicular CC and wilm's tumour, and for enhancing apoptosis. The present sequence is that of the human inhibitor of apoptosis (IAP) protein testis IAP BIR2 domain which was used to demonstrate homology to other human IAP protein CC BIR domains to which the peptides of the invention are targeted to bind.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 1A; 53pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer and other neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Polypeptide capable of forming a complex with a polypeptide comprising a baculovirus inhibitor of apoptosis repeat domain useful for treating
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08-APR-2002; 2002US-0370934P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 La Casse E,
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Best Loc
Matches
         Query Match
Best Local
                                    Sequence 66
 56;
          Similarity
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 Conservative
         89.2%;
Score 347; DB 7;
Pred. No. 2.2e-34;
6; Mismatches 4
4
               Length 66
Indels
0,
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The invention relates to the identification of modulators of cap-
CC independent translation and apoptosis. The method comprises exposing a
C test compound to an X-linked inhibitor of apoptosis protein (XIAP)
CC internal ribosome entry site (IRES) reporter cistron, and determining the
CC compound relative to the translation from the IRES reporter cistron exposed to the
CC compound relative to the translation from the unexposed XIAP IRES
CC reporter cistron. A relative increase in translation from the exposed
CC XIAP IRES reporter cistron indicates a compound that increases XIAP IRES
CC dependent (cap independent) translation. XIAP protein plays a critical
CC consisted cap independent) translation. XIAP protein plays a critical
CC dependent (cap independent) translation. XIAP protein plays a critical
CC dependent (cap independent) translation (thus leading to reduced
CC expression of XIAP and hence increasing apoptosis) can be used for
CC dependent upregulate XIAP translation and hence inhibit apoptosis,
CC which can be used to treat autoimmune diseases, degenerative diseases or
CC immunorejection. Such agents may, for example, be used to inhibit
CC apoptosis of neurons in conditions such as Alzheimer's disease; islet
CC cells in autoimmune diabetes mellitus, photoreceptor cells in retinitis
CC pigmentosa and diabetes mellitus, photoreceptor cells in retinitis
CC infarction. They can also be used to enhance the survival of cell or
CC expression constructs which encode XIAP or other IAPB (inhibitor of
CC apoptosis proteins, e.g., TIAP: AAY81.440). Such constructs may be used in
CC apoptosis proteins, e.g., TIAP: AAY81.440). Such constructs may be used in
CC expressents human TIAP (an inhibitor of apoptosis protein), DNA encoding
CC which may be used in an expression vector comprising a XIAP IRES element
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 82; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated X-linked inhibitor of apoptosis internal ribosome entry site, used to develop agents for treating, e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JUL-1998;
14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIAP; inhibitor of apoptosis protein; IAP; X-linked IAP; XIAP; internal ribosome entry site; IRES; human; cap-independent translation; drug screening; cancer; autoimmune disease; degenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY81440 standard; protein; 236 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYOT-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIAP (an inhibitor of apoptosis).
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99US-00332319.
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1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60

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RESULT 24
AABO0365
ID AABO0365
AAC AABO
XX AABO
AX AABO
AX AABO
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XX Huma
XX Huma
XX Togre
KW Chicc
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The present sequence is human inhibitor of apoptosis (IAP)-like protein-2 (ILP-2). The hILP-2 gene is located on chromosome 19q13.3-q13.4. ILP-2 comprises a single amino-terminal domain known as baculovirus iap repeat (BIR), followed by a spacer region and a carboxy-terminal ring finger domain. It interacts with transforming growth factor beta receptor (TGFbetaR) and modulates TGFbetaR activity. It also potently inhibits apoptosis induced by overexpression of Bax or by Caspase-9 and Apaf-1. It also activates c-Jun N-terminal kinase (JNK) activity. ILP-2 is used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; inhibitor of apoptosis; IAP-like protein-2; ILP-2; chromosome 19q13.3-q13.4; transforming growth factor beta receptor; Chromosome 19q13.3-q13.4; transforming growth factor beta receptor; TGFbetaR; c-Jun N-terminal kinase; JNK; gene therapy; glutaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cancer; T-cell acute lymphoblastic leukaemia; neurodegenerative disease; retinal degeneration; hyperferritinaemia-cataract syndrome; cancer; autoimmune disease; diabetes; multiple sclerosis; cytostatic.
                                                                                                                                                                                                                                                                                                                                     Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with transforming growth factor beta receptor modulating activity, and the nucleic acids that encode them, useful for treating, e.g. diabetes and
                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                             multiple sclerosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human IAP-like
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DB; AAD03581.
                                                                                                                                                                                                                                                         1; Fig 2; 108pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HEALTH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note= "Baculovirus iap repeat"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= BIR_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
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Pred. No. 9.7e-34;
6; Mismatches 4
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RESULT 25
AAUT5066
ID AAUT5
XX AAUT5
XX AAUT5
XX AAUT5
XX TIAP;
XX
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This invention relates to a novel isolated nucleic acid molecule encoding a TIAP polypeptide (testes-specific inhibitor of apoptosis) protein. This gene is a homologue of the X-linked XIAP gene and is located on chromosome 12q22-23. The nucleotide and protein sequences of the invention and vectors containing these sequences may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate TIAP expression. Additionally, the nucleotide sequence may be used to express the TIAP protein by recombinant methods. Conversely, antisense nucleic acid molecules may be administered to down-regulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the area of genetic testing for predisposition to diseases, such as cone-
rod retinal dystrophy-2, retinitis pigmentosa, glutaricaciduria, T-cell-
acute lymphoblastic leukaemia, colorectal cancer and hyperferritinaemia-
cataract syndrome owing to an ILP-2 deletion or mutation. The ILP is also
used in the treatment of diseases associated with abnormal apoptosis such
as cancer, autoimmune diseases, e.g., diabetes and multiple sclerosis and
neurodegenerative diseases including retinal degeneration. The ILP-2 gene
is also used in gene therapy for treating patients suffering from ILP-2
                                                                                                                                                                                                                                                                                                                                                      Nucleic acids encoding a testis specific apoptosis inhibitor protein (TIAP) useful for treating testicular cancers, cancers in non-testicutissues, male infertility, and for achieving male birth control.
                                                                                                                                                                                                                                                                                                 Example 4; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US6331412-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptotic; cytostatic; anti-infertility; contraceptive; chromosome 12q22-23; transgenic animal; antibody; immunogen; testicular cell; testicular cancer; cancer; male infertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human testes specific inhibitor of apoptosis (TIAP) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU75066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU75066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is also used in gene therapy gene deletions or mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIAP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYOT-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002-105275/14.
DB; ABK13197.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              birth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             apoptosis; testes specific inhibitor of apoptosis; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YEARLITFGTWMYSVNKEQLARAGFYAIGQEDKVQCFHCGGGLANWKPKEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 236 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              control;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.2%;
milarity 84.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTTAWA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lagace
                                                                                                                                                                                                                                                                                                    4B; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0073001P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9905-00239867
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 XIAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry
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Pred. No. 9.7e-34;
6; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
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                                                                                                                                                                                                                                                                                                                                                            in non-testicular control.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63
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RESULT 26
ABG32417
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                              Novel polypeptide, a member of inhibitor of apoptosis family of proteins that is expressed in testes useful for modulating apoptosis in cells, particular cells involved in male fertility.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-1998;
29-JAN-1999;
                                                                                                                                                                                                                        WPI; 2002-642245/69.
                                                                                                                                                                                                                                                                                                 Korneluk RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUL-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inhibitor of apoptosis protein; IAP; testis; TIAP; apoptosis; inhibitor; fertility; testicular cancer; male infertility; male birth control.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Inhibitor of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG32417;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG32417 standard; protein; 236 AA.
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                                                                                                                                                                                                                                                                                                                                                                       (KORN/) KORNELUK R G (LAGA/) LAGACE M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-DEC-2001; 2001US-00024433
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                                                                                                                                                                                     ABS52802.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YEARLITFGTWMYSVNKEQLARAGFYAIGQEDKVQCFHCGGGLANWKPKEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           apoptosis protein, TIAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                         Lagace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0073001P.
99US-00239867.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Encoded by nnn; start codon is illegible in
specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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RESULT 27
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful for identifying a compound that modulates TIAP biological activit (I) is useful for increasing apoptosis in a cell, preferably a germ-line cell and for increasing fertility in an animal. (I) is useful for treating or preventing apoptosis which occurs as a part of testicular cancer and male infertility. TIAP may be manipulated for use as a male birth control. TIAP polypeptides and nucleic acid sequences also have diagnostic use in the detection or monitoring of conditions involving aberrant levels of apoptosis. The present sequence represents the amino acid sequence of TIAP
                                                                    New inhibitor of apoptosis proteins and polynucleotides useful in vaccines for inducing an immune response against hyperproliferative diseases e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; inhibitor of apoptosis 7; IAPL7; cytostatic; antiapoptotic; IAP, apoptosis; V-Rel; cancer; NF-kappaB; chromosome 19; vaccine; gene therapy; hyperproliferative disease; transgenic animal; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A substantially pure TIAP polypeptide (I), a member of IAP (inhibitor of apoptosis) family of proteins that is expressed in the testes. (I) is
                                                                                                                                            WPI; 2002-188741/24.
P-PSDB; ABK14677.
                                                                                                                                                                                                  Hentsch
                                                                                                                                                                                                                                                                         28-JUL-2000; 2000EP-00116452
                                                                                                                                                                                                                                                                                                          18-JUL-2001; 2001WO-EP008287.
                                                                                                                                                                                                                                                                                                                                             07-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                 WO200210381-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Inhibitor of apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU75747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU75747 standard; protein; 464 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 236 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 3; Fig 4B; 24pp; English
                                                                                                                                                                                                                                     (MERE ) MERCK PATENT GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64 PGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69
                                                                                                                                                                                                                                                                                                                                                                                                              /note= "This sequence is of the specification and represented in ABK14678"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein 7 (IAPL7) protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 347; DB 5;
Pred. No. 9.7e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                   specifically claimed in claim 1 is encoded by the nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
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                                                                                         hyperproliferative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
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Claim 1; Page 35-36; 41pp;

English.

This invention

relates to the nucleic acid and protein sequences

of.

novel inhibitor apoptosis protein (IAPL7) polypeptide. These sequences have homology to the IAP (inhibitors of apottosis) gene family which are thought to inhibit proteins by regulating the anti-apoptotic activity of the V-Rel and NF-kappaB family of transcription factors. The gene for IAPL7 is located on human chromosome 19. The nucleic acids of the

WPI; 2004-651687/63.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC invention are useful for screening to identify compounds that stimulate CC or inhibit the function or level of IAPL7, where the identified compounds are useful for treating hyper-proliferative diseases such as cancer. The CC protein sequences may also be used to identify membrane bound or soluble receptors of IAPL7 by standard receptor binding techniques. Nucleic acids CC encoding IAPL7, may be used as hybridisation probes for CDNA and genomic CDNA, or as primers for nucleic acid amplification reaction and the CC primers and probes may also be used to isolate full-length cDNAs and genomic Clones encoding IAPL7. The nucleic acid sequences are useful as CC disgnostic reagents for disgnosing a disease or a susceptibility to a CC disease by detecting mutations in the associated gene. The nucleic acid sequence is useful for chromosome localisation and tissue expression CC sequence is useful for producing transgenic animals. The IAPL7 CC protein sequence may also be used to generate an anti-IAPL7 antibody CC which is useful in screening methods for detecting the effect of added C compounds on the production of mRNA and protein in cells. The sequences CC immunological response in a mammal. The present sequence represents the human inhibitor of apoptosis 7 (IAP7) protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                      BIR domain binding oligopeptide; BDB oligopeptide; melanoma inhibitor of apoptosis; ML-IAP; caspase inhibition; apoptosis; cancer; IAP antagonist; baculovirus IAP speat domain; BIR domain; melanoma; breast cancer; colorectal cancer; lung cancer; ovarian cancer; central nervous system cancer; liver cancer; bladder cancer; pancreatic cancer; cervical cancer; leukaemia; fruit fly; sickle;
                Deshayes K,
Vucic D;
                                                                                                                                    07-FEB-2003; 2003US-00364645
                                                                                                                                                                      02-SEP-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                   X-IAP BIR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADR44576 standard; protein; 87
                                                                                                 07-FEB-2003; 2003US-00364645
                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                  (GETH ) GENENTECH
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                                                                                                                                                                                                                                                                         subunit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    μ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YEARI FTFGTWI YSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGCKYL 297
                                                                                                                                                                                                                                                                                                                                                                                                                   domain.
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                              Fairbrother W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                         N-terminal; X-IAP
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Pred. No. 2.1e-33;
                            Flygare
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                                Franklin MC,
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The invention describes an isolated BIR domain binding (BDB) oligopeptide that specifically binds melanoma inhibitor of apoptosis (ML-IAP) and CC releases the inhibitory effect that ML-IAP has on caspase activity. Also Cd described are: a method of increasing apoptosis in a cell comprising CC contacting the cell with the oligopeptide, where the apoptosis is CC increased; an article of manufacture comprising a container; the CC composition of matter contained within the container; the CC composition of matter contained within the container; and a label affixed CC treatment of or the diagnostic detection of matter for the therapeutic CC treatment of or the diagnostic detection of a cancer; a method of CC treatment of or the diagnostic detection of a cancer; a method of CC treatment of or the diagnostic detection of a cancer; a method of an ML-IAP polypeptide to form a co-crystalline structure and determining if the potential antagonist binds to the BIR domain; determining whether the CC antagonist increases apoptosis in cells relative to antagonist untreated CC cells; a method of screening antagonists of an ML-IAP polypeptide to form a co-crystalline structure and CC where binding occurs if there is at least one contact between a specific amino acid residue of a given patch and the candidate molecule that is CC oligopeptide and composition of matter are useful for increasing ccell, a central nervous system cancer cell, a lander cancer cell, a central nervous system cancer cell, a liver cancer cell, a bladder cancer cell, a pancreatic cancer cell, a cancer cell, and a leukaemia cell. This is the amino acid sequence of IAP BIR comain associated with the selection of BIR domain binding oligopeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 10; Fig 5; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated BIR domain binding (BDB) oligopeptide that specifically binds melanoma inhibitor of apoptosis (ML-IAP) and releases the inhibitory effect that ML-IAP has on caspase activity, useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              increasing apoptosis in cells.
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Query Match Best Local : Sequence 87 Similarity ĀΆ, 88.0**%**; 90.9**%**; Score 342.5; Pred. No. 1.1 DB 8 Length

Matches

60;

Conservative

0

Mismatches

<u>ა</u>

Indels

1;

Gaps

.1e-33

B Ś 9 μ YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGITDWKFSEDPWEQHAKWY YEARXXTFGTWIYSYNKEQLAXAGFYALGEGDKYKCF-CGGGLTDWKPSEDPWEQHAKWY 67 60

밁 S 83 61 PGCKYL PGCKYL 73 66

AAE00366 standard; protein; 236

AAE00366;

Chimpanzee IAP-like protein-2 (ILP-2) with TGFbetaR modulating activity. (first entry)

Chimpanzee; inhibitor of apoptosis; IAP-like protein-2; ILP-2; transforming growth factor beta receptor; TGPbetaR; c-Jun N-terminal kinase; JNK; gene therapy; glutaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal c T-cell acute lymphoblastic leukaemia; neurodegenerative disease; retinal dazonezy-ion. retinal degeneration; hyperferritinaemia-cataract syndrome; colorectal cancer; cancer;

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RESULT 30
ADB61831
ID ADB61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                          baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with transforming growth factor beta receptor modulating activity, and to nucleic acids that encode them, useful for treating, e.g. diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB61831 standard; protein; 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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      uterine
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83.3%;
                                                                                                                                                                                                                                                                                           apoptosis (IAP) protein IAP BIR3
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Pred. No. 5.
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.2e-33;
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CC Insigth of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC apolypeptide that includes a baculovirus inhibitor of apoptosis repeat CC and neurodegenerative diseases. The failure of the apoptotic response has CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAP1) all posses three BIR domains and carboxy CC terminal RIMG zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC which inhibit the activity of IAPs may therefore have cytostatic activity CC through the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They be always be useful for the treatment of cancer and other neoplasms, such as CC may be useful for the treatment of cancer and other neoplasms, such as CC may be useful for the treatment of cancer and other neoplasms, such as CC cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer, small cell lung carcinoma, uterine cancer, testicular cancer in the first of the gorilla inhibitor of apoptosis. The present sequence is that of the gorilla inhibitor of apoptosis (IAP) protein IAP BIR3 domains CC that of the gorilla consertate homology to human IAP protein BIR domains to which the peptides of the invention are targeted to bind.
Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Polypeptide capable of forming a complex with a polypeptide comprising a baculovirus inhibitor of apoptosis repeat domain useful for treating cancer and other neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 1B; 53pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            small cell lung carcinoma; uterine cancer; renal cell carcinoma;
Wilm's tumour; BIR 3 domain; gorilla.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003040172-A2
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                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                              Query Match
19-JUN-2001
                 AAE00367;
                                     AAE00367
                                                                                                                                                                    Local
                                                                                                    61
                                                                                  61
                                                                                                                                                            54
;
                                                                                                                                                                      Similarity
                                                                                                PGCKYL 66
                                                                                                                                  YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY
                                    standard;
                                                                                                                      YEAWLITFGTWMYSVNKEQLARAGFYAIGQEDKIQCFHCGGGLANWKPKEDPWEQHAKWY
                                                                                                                                                            Conservative
(first entry)
                                                                                  66
                                    protein; 236 AA.
                                                                                                                                                                   86.9%;
                                                                                                                                                           7;
                                                                                                                                                           Score 338; DB 7;
Pred. No. 2.8e-33;
7; Mismatches
                                                                                                                                                           Ç
                                                                                                                                                                            Length
                                                                                                                                                            Indels
                                                                                                                                                                              66
                                                                                                                                                           0,
                                                                                                                                                           Gaps
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RESULT 32
ADB61832
ID ADB61
XX
AC ADB61
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is gorilla inhibitor of apoptosis (IAP)-like protein c2 (ILP-2) cDNA. ILP-2 comprises a single amino-terminal domain known as CC baculovirus iap repeat (BIR), followed by a spacer region and a carboxy-terminal ring finger domain. It interacts with transforming growth factor CC beta receptor (TGFbetaR) and modulates TGFbetaR activity. It also cC cappase-9 and Apaf-1. It also activates c-Jun N-terminal kinase (JNK) CC caspase-9 and Apaf-1. It also activates c-Jun N-terminal kinase (JNK) CC cativity. ILP-2 is used in the area of genetic testing for predisposition CC to diseases, such as cone-rod retinal dystrophy-2, retinitis pigmentosa, CC glutaricaciduria, T-cell acute lymphoblastic leukaemia, colorectal cancer CC and hyperferritinaemia-cataract syndrome owing to an ILP-2 deletion or CC with abnormal apoptosis such as cancer, autolimune diseases associated CC with abnormal apoptosis such as cancer, autolimune diseases including retinal degeneration. The ILP-2 gene is also used in gene therapy for CC treating patients suffering from ILP-2 gene deletions or mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Inhibitors of apoptosis proteins designated ILP-2 and ILP-3 with transforming growth factor beta receptor modulating activity, and the nucleic acids that encode them, useful for treating, e.g. diabetes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c-Jun N-terminal kinase; JNK; gene therapy; glutaricaciduria; cone-rod retinal dystrophy-2; retinitis pigmentosa; colorectal cancer; T-cell acute lymphoblastic leukaemia; neurodegenerative disease; retinal degeneration; hyperferritinaemia-cataract syndrome; cancer; autoimmune disease; diabetes; multiple sclerosis.
                                      ADB61832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Fig 2; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gorilla; inhibitor of apoptosis; IAP-like protein-2; ILP-2; transforming growth factor beta receptor; TGFbetaR; cytosta
                                                                                                 ADB61832 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-258135/26.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-SEP-2000; 2000WO-US026735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-APR-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                     64
                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sclerosis.
                                                                                                                                                                                                                                                                                                                                   PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                         YEAWLITPGTWMYSVNKEQLARAGFYAIGQEDKIQCFHCGGGLANWKPKEDPWEQHAKWY
                                                                                                                                                                                                                                                                     PGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth factor beta receptor;
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                                                                                                                                                                                                                                                                     69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  86.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 338; DB 4; 1
Pred. No. 1.2e-32;
7; Mismatches 5;
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11 WIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66

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Gaps

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WIYSVNKEQLSRAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHDKWHPGCKYL 57

Matches

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CC Inis invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC and neurodegenerative diseases. The failure of the apoptotic response has CC and neurodegenerative diseases. The failure of the apoptotic response has CC example systemic lupus erythematosis and multiple sclerosis) and viral cinfections (including herpes virus, poxvirus and adenovirus. The CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAP1) all posses three BIR domains and carboxy CC terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and CC which inhibit the activity of IAPs may therefore have cytostatic activity CC through the enhancement of apoptosis. The possession of are candidate peptide ligands for binding to the BIR domain of IAPs. They CC may be useful for the treatment of cancer, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma CC and wilm's tumour, and for enhancing apoptosis. The present sequence is CC domain which was used to demonstrate homology to human IAP protein BIR CC domains to which the peptides of the invention are targeted to bind.
                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XI. HIAP1; cIAP2; AIAP1; RING zinc finger; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma; cervical cancer; uterine cancer; testicular cancer; small cell lung carcinoma; uterine cancer; renal cell carcinoma; wilm's tumour; BIR 3 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response;
                                                                            Sequence 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 1B; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polypeptide capable of forming a complex with a polypeptide comprising a baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Boudreault A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-2002; 2002WO-CA001738.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003040172-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unidentified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-MAY-2003
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                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          other neoplasms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibitor of apoptosis (IAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Korneluk RG, La Casse
                82.8%;
94.6%;
Score 322; DE
Pred. No. 2.1e
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                    DB 7;
.le-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein
                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                XIAP;
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RESULT 33

ADI39821 standard; protein; 53

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RESULT 34
ADB61829
ID ADB61
XX
AC ADB61
XX
AC ADB61
XX
XX
O4-DE
XX
XX
Chicl
XX
KW bacul
KW apopt
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                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to inhibitor of apoptosis (iap)-like proteins (ip) and polynucleotides encoding such proteins. Sequences of the invention are useful for inhibiting or stimulating apoptosis in target cells or for treating certain cancers. They are also useful in the immortalisation of cells for culture, for inhibiting the activation of cysteine proteases and to sustain host cell survival following viral infection. The ilp may also be used as a marker in gel separation procedures or as a standard in protein concentration determinations. The present sequence is human neural apoptosis inhibitory protein (NAIP) baculovirus iap-like repeat (BIR) region.
baculovirus inhibitor of apoptosis repeat domain; apoptosis pathway; embryonic development; viral pa
                                                                               04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New inhibitor of apoptosis-like protein (ilp) and polynucleotide encoding ilp, useful for inhibiting or stimulating apoptosis in target cells, treating certain cancers, or sustaining host cell survival following viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    innibitor of apoptosis-like protein; iap; ilp; apoptosis; therapy; cancer; cell immortalisation; cysteine protease; viral infection; cytostatic; virucide; baculovirus iap-like repeat; BIR; human; neural apoptosis inhibitory protein; NAIP.
                                             Chicken inhibitor of apoptosis (IAP) protein XIAP BIR3 domain.
                                                                                                               ADB61829;
                                                                                                                                         ADB61829 standard; protein;
                                                                                                                                                                                                                                                                                                                                                 Sequence 53 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 2; SEQ ID NO 19; 42pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-391256/37.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-MAY-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human NAIP BIRa region #1.
                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                    49;
                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CB.
                                                                                                                                                                                                                                      EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66
                                                                                                                                                                                                                     EQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 49
                                                                                                                                                                                                                                                                                  75.8%; ilarity 100.0%; Conservative 0
                                                                               (first entry)
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                                                                                                                                          66
                                                                                                                                                                                                                                                                               Score 295; DB
; Pred. No. 3.7
0; Mismatches
                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                3.7e-28;
                                                                                                                                                                                                                                                                                0,
 pathogenesis; cancer;
                                                                                                                                                                                                                                                                                                             Length 53;
                 BIR domain;
                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                Gaps
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CC embryonic development, viral pathogenesis, cancer, autoimmune disorders can development, viral pathogenesis, cancer, autoimmune disorders common miplicated in the development of cancer, autoimmune disorders (for common expense) in the development of cancer, autoimmune disorders (for common expense) in the development of cancer, autoimmune disorders (for common expense) in the development of cancer, autoimmune disorders (for common expense) including herpes virus, poxvirus and adenovirus. The common expenses in the common expenses in possessing one or common expenses of apoptosis (IAPs) are a family of proteins possessing one or common expenses. The particular common expenses in the interest of apoptosis. Compounds common expenses involved in the initiation of apoptosis. Compounds common expenses involved in the initiation of apoptosis. Compounds common the enhancement of apoptosis in the polyapptides of the invention care candidate peptide ligands for binding to the BIR domain of IAPs. They can be useful for the treatment of cancer and other neoplasms, such as clevkaemias, colon carcinoma, cervical cancer, termal cell carcinoma cancer, small cell lung carcinoma, uterine cancer, renal cell carcinoma common expenses, and for enhancing apoptosis. The present sequence is that of the chicken inhibitor of apoptosis (IAP) protein XIAP BIR3 domain components are the invention are tracted to bind IR domains in the invention are tracted to the invention are invention are tracted to the invention are invention are tracted.
      Query Match
Best Local S
Matches 47
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                                                                                                                                                                                                                                                             Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex wit a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in the property of the pathway is known to play a critical role in the pathway is the play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to play a critical role in the pathway is known to pathway in the pathway is known to pathway is 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-513532/48
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08-APR-2002; 2002US-0370934P.
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            47;
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                                                                       Similarity
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            Conservative
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                                                                73.8%;
71.2%;
      Score 287; DB Pred. No. 4.5e 6; Mismatches
      6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   La
                                                                                                                                                                                                                                                                                                                                                                                        invention
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                                                                287; DB 7;
No. 4.5e-27;
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PGCKYL 66

YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY

YERRIQTFLAWIYPVNKEHLAEAGFYSTGNGDHVVCFHCGGGLQEWKENEDPWDQHAKWF

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Matches
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                                                                                                                                                                                                                        nucleotide sequence selected from one of 1680 sequences, a mature protein coding portion of them, an active domain of them and their complementary sequences. The invention may be useful for the production of compounds with an antiarthritic, antiparkinsonian, neuroprotective, nootropic, immunosuppressive, cytostatic, antipsoriatic, antiinflammatory, antiinflated antiviral, antiviral, antiingal or antiparasitic activity. In addition, the disclosed sequences may be useful for gene therapy. The polypeptides or their antibodies are useful for treating many diseases such as arthritis, Parkinson's, Alzheimer's, autoimmune diseases, cancer, psoriasis, inflammatory bowel disease and infections caused by bacteria, viruses, fund or parasites. The present sequence is that of a human religious causes and infections caused by bacteria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-MAR-2000; 2000US-00519705.
19-MAY-2000; 2000US-00574454.
                                                                                                                                                                                Sequence 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Isolated polynucleotide encoding bone marrow derived polypeptides useful for treating, e.g., Parkinson's, Alzheimer's, cancer, arthritis, Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-MAR-2001; 2001WO-US004941.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiarthritic; antiparkinsonian; neuroprotective; nootropic; immunosuppressive; cytostatic; antipsoriatic; antipiniflammatory; antibacterial; antiviral; antipanigal; antiparasitic; gene therapy; arthritis; Parkinson's; Alzheimer's; autoimmune disease; cancer; psoriasis; inflammatory bowel disease; infection; bacteria; virus;
                                                                                                                                                                                                                polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                     This invention relates to a novel isolated polynucleotide comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for treating, e.g., Parkinson's, Alzheim disease, and inflammatory bowel disease.
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                                                                                                                                      Local
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                                                                                                                                    Similarity
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                                                                               YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY 60
PRCKYL
                                                        YEAQIITLGMMMYSVNKQQHAGAEFYALGKGDKVKCFCCGRRLTDWKPIEHPREQHAKWY 65
                           PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 7057; 504pp; English.
                                                                                                                      Conservative
                                                                                                                                                                                                                  of the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note- "OTHER- All Xaa's in this sequence are unknown amino acids or the site of a stop codon within the DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  label= OTHER
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                                                                                                                                                                                                                  invention.
                                                                                                                                    70.2%;
74.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RT
                                                                                                                    Score 273; DB 5;
Pred. No. 5.9e-25;
4; Mismatches 13
                                                                                                                    13;
                                                                                                                                               Length 151;
                                                                                                                      Indels
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RESULT 36
ADB61830
CC Inis invention relates to a substantially pure polypeptide having a CC length of less than 100 amino acids and capable of forming a complex with CC a polypeptide that includes a baculovirus inhibitor of apoptosis repeat CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders CC and neurodegenerative diseases. The failure of the apoptotic response has been implicated in the development of cancer, autoimmune disorders (for CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC inhibitors of apoptosis (IAPs) are a family of proteins possessing one or CC more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (C. CIAP2) and HIAP2 (CIAP1) all posses three BIR domains and carboxy CC terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and critical are proteases involved in the initiation of apoptosis. Compounds CC which inhibit the activity of IAPs may therefore have cytostatic activity through the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They cancer, small cell lung carcinoma, cervical cancer, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC cancer, small cell lung carcinoma, uterine cancer, testicular CC which was used to demonstrate homology to human IAP protein BIR domains CC to which the peptides of the invention are targeted to bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       baculovirus inhibitor of apoptosis repeat domain; BIR domain; apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP; HIAP1; cIAP2; HIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7; caspase-9; cytostatic; neoplasm; leukaemia; cancer carcinoma; cervical cancer; uterine cancer; testicular cancer; small cell lung carcinoma; uterine cancer; renal cell carcinoma; wilm's tumour; BIR 3 domain; bovine; cow.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating cancer and other neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
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Sequence 52

Length 52;

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ADB61833
ID ADB61833
ID ADB61833
ID ADB61833
AX ADB61
AX BYSTE
KW BACULI
KW BYSTE
KW HIAPP
KW CERTYI
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a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptosic response has been implicated in the development of cancer, autoimmune disorders (for example systemic lupus erythematosis and multiple sclerosis) and viral infections (including herpes virus, poxvirus and admovirus. The inhibitors of apoptosis (IAPs) are a family of proteins possessing one or more baculovirus IAP repeat (BIR) domains. Human IAPs, XIAP, HIAP1 (CIAPs) and HIAP2 (CIAPs) all posses three BIR domains and carboxy terminal RING zinc fingers. The IAPs bind and inhibit caspases -3, -7 and -9 which are proteases involved in the initiation of apoptosis. Compounds which inhibit the activity of IAPs may therefore have cytostatic activity through the enhancement of apoptosis. The polypeptides of the invention are candidate peptide ligands for binding to the BIR domain of IAPs. They may be useful for the treatment of cancer and other neoplasms, such as leukaemias, colon carcinoma, cervical cancer, testicular cancer, testicular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-2001; 2001US-0332300P.
08-APR-2002; 2002US-0370934P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-513532/48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        other neoplasms
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91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
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Pred. No. 2.7e-23;
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RESULT 38
ADB61813
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This invention relates to a substantially pure polypeptide having a length of less than 100 amino acids and capable of forming a complex wit a polypeptide that includes a baculovirus inhibitor of apoptosis repeat (BIR) domain. The apoptosis pathway is known to play a critical role in embryonic development, viral pathogenesis, cancer, autoimmune disorders and neurodegenerative diseases. The failure of the apoptotic response habeen implicated in the development of cancer, autoimmune disorders (for example systemic lupus erythematosis and multiple sclerosis) and viral infections (including herpes virus, poxvirus and adenovirus. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             apoptosis pathway; embryonic development; viral pathogenesis; cancer; autoimmune disorder; neurodegenerative disease; apoptotic response; systemic lupus erythematosis; multiple sclerosis; viral infection; herpes virus; poxvirus; adenovirus; inhibitor of apoptosis; IAP; XIAP HIAP1; cIAP2; cIAP1; RING zinc finger; caspase-3; caspase-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              caspase-9; cytostatic; neoplasm; leukaemia; colon carcinoma;
cervical cancer; uterine cancer; testicular cancer;
small cell lung carcinoma; uterine cancer; renal cell carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and Wilm's tumour, and for enhancing apoptosis. The present sequence that of the zebra fish inhibitor of apoptosis (IAP) protein XIAP BIR2 domain which was used to demonstrate homology to human IAP protein BI domains to which the peptides of the invention are targeted to bind.
                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                   cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                              Polypeptide capable of forming a complex with a polypeptide comprising baculovirus inhibitor of apoptosis repeat domain useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-513532/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boudreault A,
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08-APR-2002; 2002US-0370934P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  baculovirus inhibitor of apoptosis repeat domain; BIR domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human inhibitor of apoptosis (IAP) protein HIAP1 BIR3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 68
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY
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35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human; BIR 3 domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Korneluk RG,
                                                                                                                                                                                                                                                                                                                               1A; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66
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Pred. No. 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  domain.
                                                                                                                                                                                                                                    complex with
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RESULT 39
ADO26592
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
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                        The present invention relates to a method for characterisation of chromosome translocation T (11;18) (q21;q21) and its association with malignancies such as mucosa-associated lymphoid tissue (MALT)-lymphomas Also disclosed are: the polynucleotide and polypeptide sequences for human mucosa-associated lymphoid tissue (MALT)-Lymphoma associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chromosome translocation; malignancy; mucosa-associated translocation; mucosa-associated lymphoid tissue-lymphoma associated translocation; MLT; MLT; primary cell transformation; apoptosis inhibitor 2; API2;
                                                                                                                                                                                                                                                              New mucosa-associated lymphoid tissue-lymphoma associated translocation protein, useful in diagnosing and treating tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Dierlamm J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tumour; cytostatic; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
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Translocation (MLT),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG
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                                                                                                                                                                                                                                                                                                                                                          ADO26591
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                                                                                                                                                                                                 88pp;
novel mechanism of primary cell
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Pred. No. 8.2e-18;
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Best Local Similarity

54.2%;

Score Pred.

211; DB 6; No. 9.2e-17;

Length 557;

Sequence 557

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                                               protein CIAP2. The invention provides a nucleic acid, such as an antisense oligonucleotide, which specifically hybridises to a nucleic acid encoding an inhibitor of apoptosis protein, especially MIAP1, MIAP2, MIAP3, CIAP1 CIAP2 and XIAP. A claimed method for inducing a cell's death comprises contacting the cell with the nucleic acid under conditions permitting the nucleic acid to enter the cell, especially the method is used to treat acute lymphocytic leukaemia, acute myelogenous leukaemia, lung cancer, breast cancer, ovarian cancer, prostate cancer, lymphoma, Hodgkin's disease, malignant melanoma, neuroblastoma, renal cell carcinoma and squamous cell carcinoma (all claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            by expression of a fusion protein comprising at least apoptosis inhibitor 2 (API2) fused to another protein such as MLT. The MLT polynucleotide and polypeptide sequences, and the method of the invention are useful in diagnosing and treating tumours. The present sequence represents human
                                                                                                                                                                                                                                                                                                                                                                  The present sequence is the protein sequence of inhibitor of apoptosis protein CIAP2. The invention provides a nucleic acid, such as an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acid encoding an inhibitor-of-apoptosis protein, useful for treating cancer, neurodegenerative disorder or cardiomyopathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-2001; 2001US-00898158.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 17A; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-JUL-2002; 2002WO-US021002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inhibitor of apoptosis; CIAP2; apoptosis; cancer; leukaemia; lymphoma; neuroblastoma; carcinoma; melanoma; cytostatic; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Inhibitor of apoptosis protein CIAP2
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Db 25 HAREKTERWESSULWEBQLASAGEYYVGNSDDWGCPCCDGGLRCWESGDDEWQHAK 58 QY 59 WFOCKYL 66 Db 315 WEPKREYL 322 Search completed: June 15, 2005, 17:35:45 Job Line: 116 secs	
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Result
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB seq length: 0
DB seq length: 2000000000
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1 YEARIFTFGTWIYS
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Gapop 10.0 , Gapext 0.5
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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                     US-08-511-485-25
US-09-201-936-25
US-09-201-932-25
US-09-201-932-25
US-09-201-932-25
US-09-201-932-4
US-08-511-485-4
US-08-617-053A-4
US-08-617-053A-4
US-09-617-053A-4
US-09-617-053A-4
US-09-011-356-4
US-09-201-932-4
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US-08-511-485-25
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
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US-08-511-485-6	US-09-579-692B-58	US-09-201-932-26	US-09-011-356-26	,	US-08-511-485-26		-10-138-616	-10-138-618	US-08-975-080-32	US-08-975-080-29	US-08-975-080-28	US-08-657-759-19	US-10-024-433-2	US-09-239-867-2	US-09-332-319-4	US-09-121-979-4	US-09-201-932-10
Sequence 6, Appli	Sequence 58, Appl	Sequence 26, Appl	Sequence 26, Appl	•	Sequence 26, Appl		Sequence 29, Appl		•	Sequence 29, Appl	•	Sequence 19, Appl	Sequence 2, Appli	Sequence 2, Appli	Sequence 4, Appli	Sequence 4, Appli	Sequence 10, Appl

ALIGNMENTS

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; TYPE: amino acid
; STRANDENESS: not
; TOPOLOGY: both
; MOLECULE TYPE: prote
US-08-511-485-25
                                                                                Query Match
Best Local S
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Patent No. 5919912
GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: Mackenzie, Alexander E.
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                  Matches
                                                                                                                                                                                                                                                                                TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 0754
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEPAX: 617/542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/511,485
FILING DATE: 04-AUG-1995
CLASSIFICATION: 514
CCANSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 66 amino acids
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CITY: Boston
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1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                  Similarity
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                                                                  Conservative
                                                                                                                                                               protein
                                                                                                                                                                                                    not relevant
                                                           100.0%; Score 389; DB 2;
100.0%; Pred. No. 2.4e-44;
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                                                                                                     Length 66
                                                                Indels
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                                                             Gaps
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TITLE OF INVENTION: ADMINALIAN IAP GENE FAMILY, PRIME;
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003002
CCURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER: OF SEQ ID NOS: 45
SOFTWARE: FASEISEQ for Windows Version 4.0
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/03003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
FEARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: D9/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/571,485
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US-09-011-356-25
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US-09-201-936-25
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NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 25
LENGTH: 66
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 25, Application US/09011356A Patent No. 6656704
                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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                                                                                                                                                                                                                                                                                                 APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander B.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens 09-201-936-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Baird, Stephen APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G. APPLICANT: MacKenzie, Alexander E.
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TITLE OF INVENTION: ADMINISTRATE AND LETECTION METHODS
FILE REFERENCE: 07891/003004
CURRENT APPLICATION UNWBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUWBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-08-05
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER: OF SEG ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 25
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; TYPE: PRT
; ORGANISM: Homo s
US-09-011-356-25
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                                                         Sequence 4, Application US/09239867
Patent No. 6331412
GENERAL INFORMATION:
APPLICANT: Robert G. Korneluk et al.
APPLICANT: ROBERT G. KORNEL SAND COMP
TITLE OF INVENTION: MALE FERTILITY
FILE REFERENCE: 07891/018002
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/09/239,867
CURRENT FILING DATE: 1999-01-29
PRIOR APPLICATION NUMBER: 60/073,001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 66
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
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1 Similarity 100.0%;
66; Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 389; DB 4; 100.0%; Pred. No. 2.4e-44;
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Pred. No. 2.4e-44;
                                                                                                  COMPOUNDS FOR MODULATING
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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1998-01-29

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APPLICANT: Robert G. Korneluk et al.

TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING

TITLE OF INVENTION: MALE FERTILITY

FILE REFERENCE: 07891/018002

CURRENT APPLICATION NUMBER: US/10/024,433

CURRENT FILING DATE: 2001-12-18

PRIOR APPLICATION NUMBER: 09/239,867

PRIOR APPLICATION NUMBER: 09/239,867

PRIOR FILING DATE: 1999-01-29

NUMBER OF SEO ID NOS: 10

SOPTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 4

LENGTH: 236

TYPE: PRT
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US-10-024-433-4
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US-10-024-433-4
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-239-867-4
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Matches
                                                                                                                                                                                                           Sequence 4, Application Patent No. 5919912
GENERAL INFORMATION:
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SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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NUMBER OF SEQ ID NOS:
                                                              TITLE OF INVENTION: MAMMALIAN IAP G
TITLE OF INVENTION: PROBES, AND DET
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                    APPLICANT: Mackenzié, Alexander E.
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAMPALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                APPLICANT:
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COUNTRY:
                                           ADDRESSEE: Fish & KICHALUC.
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                                Boston
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                                                                                                                                                                                                                                                                                                                                                                               PGCKYL 66
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 USA
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CURRENT APPLICATION NUMBER: US/09/212,971B
CURRENT FILING DATE: 1998-12-16
EARLIER APPLICATION NUMBER: 60/017,354
EARLIER FILING DATE: 1996-04-26
EARLIER FILING DATE: 1996-04-26
EARLIER FILING DATE: 1996-11-14
EARLIER APPLICATION NUMBER: 60/030,590
EARLIER APPLICATION NUMBER: 08/800,929
EARLIER APPLICATION NUMBER: 09/800,929
EARLIER APPLICATION NUMBER: 09/800,929
EARLIER FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 497
TYPE: PRT
ORGANISM: Homo sapiens
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; STRANDEDNESS: unknowr
; TOPOLOGY: both
; MOLECULE TYPE: protein
US-08-511-485-4
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                                                                            US-09-212-971-4
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/511,485
FILING DATE: 04-AUG-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
PREFERENCE / COUTET MIMBER: 07540/002001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 389; DB 2; Length 497; Best Local Similarity 100.0%; Pred. No. 2.8e-43; Matches 66; Conservative 0; Mismatches 0; Indels
  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexander E
APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT
TITLE OF INVENTION: DISEASE
FILE REFERENCE: 07891/009002
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LENGTH: 497 amino acids
TYPE: amino acid
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TELECOMMUNICATION INFORMATION
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Score 389; DB 3; Pred. No. 2.8e-43;
                          Length 497;
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US-08-800-929A-4
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                                                                                                                  Query Match
Best Local :
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/800,929A
FILING DATE: 13-FEB-1997
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 26-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Bieker-Brady, Kristina
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 6133437
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APPLICANT:
                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: DETECTION TITLE OF INVENTION: IAPS AND TITLE OF INVENTION: DISEASE TO SECUTENCES: 17
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APPLICANT: Pratt, Christine
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                                                                                                                                                                                                                                                                                                                     TELEFAX: 617-428-7045
                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 07891/009001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                               265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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 61 PGCKYL 66
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                                                    1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKDSEDPWEQHAKWY 60
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176 Federal Street
                                                                                             100.0%; Score 389; DB 3; illarity 100.0%; Pred. No. 2.8e-43; Conservative 0; Mismatches 0;
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Liston, Peter
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US-09-617-053A-4
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/08657759
Patent No. 6511828
GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
APPLICANT: Duckett, Colin S.
TITLE OF INVENTION: HUMAN AND DROSOPHILA INHIBITORS
TITLE OF INVENTION: OF APOPTOSIS PROTEINS (IAPB)
NUMBER OF SEQUENCES: 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 17
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 497
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 07891/009003
CURRENT APPLICATION NUMBER: US/09/617,053A
CURRENT FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
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APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
TITLE OF INVENTION: DISEASE
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APPLICANT: MacKenzie, Alexano
                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/657,759
FILING DATE: 31-MAY-1996
CLASSIFICATION: 536
CLASSIFICATION: 536
                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                   ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven
                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                               STREET: P.O. F
CITY: Houston
                                                                                                                                                                                                                                                COUNTRY: United States of America ZIP: 77210
    REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    265 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 324
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Baird, Stephen
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Steven L.
R: 37,642
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Pred. No. 2.8e-43;
); Mismatches 0;
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APPLICANT: MacKenzie, Abert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Baird, Stephen
APPLICANT: Haton, Peter
ITILE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
ITILE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
ITILE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
NUMBER: 08/501,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 3.0
IENCITH: 497
RESULT 13
US-09-011-356-4
J Sequence 4, Application US/09011356A
J Patent No. 6656704
J GENERAL INFORMATION:
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US-09-201-936-4
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; ORGANISM: Homo sapiens
US-09-201-936-4
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Best Local
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEPHAX: (512) 474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                               Match 100.0%; Score 389; DB 4; Length 497; Local Similarity 100.0%; Pred. No. 2.8e-43; BB 66; Conservative 0; Mismatches 0; Indels
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APPLICANT: Kotneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OF INVENTION: Antisense IAP Nucleic Acids and
TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025001
CURRENT APPLICATION NUMBER: US/09/672,717
CURRENT FILING DATE: 2000-09-28
NUMBER OF SEQ ID NOS: 231
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 219
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003002
CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION DATE: 1995-08-04
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                                                                                                                                                                                                             LENGTH: 497
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-672-717-219
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; ORGANISM: Homo
US-09-011-356-4
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
                                                                                                                                         Matches
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APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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325
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                                 61 PGCKYL 66
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                                                                                     1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLITDWKPSEDPWEQHAKWY 60
                                                                                                                                       66;
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                                                                  Application US/09672717
                                                                                                                                         Conservative
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100.0%; Pred. No. 2.8e-43;
vative 0; Mismatches 0;
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003004
CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
FEARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-08-05
FEARLIER FILING DATE: 1998-08-05
FEARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 09/516-956
EARLIER APPLICATION NUMBER: 09/516-956
EARLIER APPLICATION NUMBER: 09/516-956
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US-09-949-016-6032
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CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
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; ORGANISM: Homo sapiens
US-09-201-932-4
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LENGTH: 497
TYPE: PRT
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GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                           Matches
                                                                                                  Query Match
Best Local Similarity
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SOFTWARE: FastSEQ for Windows Version
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SOFTWARE: FastSEQ for Windows Version 4.0
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1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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100.0%; Pred. No. 2.8e-43;
tive 0; Mismatches 0;
                                                                      100.0%; Score 389; DB 4;
100.0%; Pred. No. 2.8e-43;
tive 0; Mismatches 0;
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Patent No. 6541457

GENERAL INFORMATION:

APPLICANT: Korneluk, Robert G.

APPLICANT: MacKenzie, Alexander

APPLICANT: Baird, Stephen

APPLICANT: Liston, Peter
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Best Local Similarity
                                                                                           Sequence 24,
                                                                                                                                                                                                                                                                                                         Matches
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 07/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: both
                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
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CLASSIFICATION:
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ZIP: 02110-2804
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TELEFAX: 617/542-8906
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591991
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                                                                                           Application US/09201936
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Mackenzie, Alexander E.
Baird, Stephen
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95.5%;
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Pred. No. 2.7e-41;
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                                                                                                                                                                                                                                                                                                                                     Length 66;
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCES: 07891/003002
CURRENT APPLICATION NUMBER: US/09/011,356A
CURRENT FILING DATE: 1998-09-14
FEARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER PILING DATE: 1998-02-04
EARLIER PILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/571,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
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US-09-011-356-24
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 24
SENGTH: 66
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SEQ ID NO 24
LENGTH: 66
TYPE: PRT
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Best Local
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                                                                      YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWDQHAKCY 60
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PGCKYL 66
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                                                                                                                                                                      94.1%;
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                                                                                                                                                   Score 366; DB 4;
Pred. No. 2.7e-41;
1; Mismatches 2
                                                                                                                                                                                          DB 4; Length 66;
                                                                                                                                                   2; Indels
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CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER PILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
NUMBER: 0F SEQ ID NOS: 45
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FeatSEQ for Windows Version 4.0
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US-08-511-485-10
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-201-932-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 20
US-09-201-932-24
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LENGTH: 66
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
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                COUNTRY: USA

ZIP: 02110-2804

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/511,485

FILING DATE: 04-AUG-1995

CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: McKenzie, Alexander E.
APPLICANT: Mackenzie, Alexander E.
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REPERENCE: 07891/003004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Korneluk, Robert G. APPLICANT: MacKenzie, Alexander E.
                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                STREET: 225 F
CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            y Match 94.1%;
Local Similarity 95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
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                                                                                                                                                                                                                                                                                                              225 Franklin Street
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    Mismatches

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Pred. No. 2.7e-41;
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US-09-212-971-10
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US-09-212-971-10
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SOFTWARE: FRANSEQ for Windows Version 4.0
SEQ ID NO 10
LENGTH: 496
                                                                                                                                                        Matches
                                                                                                                                                                                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE TITLE OF INVENTION: DISEASE FILE REFERENCE: 07891/009002 CURRENT FILING DATE: 1998-12-16 CURRENT FILING DATE: 1998-12-16 EARLIER APPLICATION NUMBER: 60/017,354 EARLIER FILING DATE: 1996-04-26 EARLIER FILING DATE: 1996-04-26 EARLIER FILING DATE: 1996-01-14 EARLIER FILING DATE: 1996-01-04-26 EARLIER FILING DATE: 1996-11-14 EARLIER FILING DATE: 1996-11-14 EARLIER FILING DATE: 1997-02-13 EARLIER FILING DATE: 1997-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
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APPLICANT: MacKenzie, Alexander E
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                        TYPE: PRT
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                                                                                                                                                                        Local
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TELEFAX: 617/542-8906
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REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 94.1%; ocal Similarity 95.5%;
324 PGCKYL 329
                                                                        264 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDFWDQHAKCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION:
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                                                                                                1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
                                                                                                                                                        63;
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                                                                                                                                                    h 94.1%;
Similarity 95.5%;
63; Conservative
                                    PGCKYL 66
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Pred. No. 3.3e-40;
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                                                                                                                                                                      Score 366; DB 3; Length 496; Pred. No. 3.3e-40;
                                                                                                                                                      Mismatches
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RESULT 24
US-09-617-053A-10
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                                                                                                                                                                                      Matches
                                                                                                                                                                                                    Query Match 94.1%;
Best Local Similarity 95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Tsang, Benjamin ...
APPLICANT: Pratt, Christine
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MO
TITLE OF INVENTION: IAPS AND NAIP FO
TITLE OF INVENTION: DISEASE
TITLE OF SROJENCES: 17
                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
FILING DATE: 26-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 424
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 60/030,590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 617-428-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                         TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Bieker-Brady, Kristina
REGISTRATION NUMBER: 07891/009001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 176 P
                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: US
ZIP: 02110
                                                                                                                         324 PGCKYL 329
                                                                                           61 PGCKYL 66
                                                                                                                                                                                    63; Conservative
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Benjamin K
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Pred. No. 3.3e-40;
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                                                                                                                                                                                                                 Length 496;
                                                                                                                                                                                      Indels
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                                                                                                                                                                                    Gaps
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Sequence 10, Application US/09617053A Patent No. 6300492
GENERAL INFORMATION:
APPLICANT: KORNeluk, Robert G
APPLICANT: MacKenzie, Alexander E

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FILE REFERENCE: 07891/03003

CURRENT EAPLICATION NUMBER: US/09/201,936

CURRENT FILING DATE: 1998-12-01

EARLIER APPLICATION NUMBER: 09/011,356

EARLIER APPLICATION NUMBER: PCT/1B96/01022

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1996-08-05

EARLIER FILING DATE: 1995-12-22

EARLIER FILING DATE: 1995-08-04

EARLIER FILING DATE: 1995-08-04

EARLIER FILING DATE: 1995-08-04

NUMBER: 0P SEQ ID NOS: 45

SOPTWARE: FBSESQ for Windows Version 3.0

SEQ ID NO 10
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US-09-201-936-10
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                                                                                                                                                                                                               US-09-201-936-10
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TITLE OF INVENTION: DETECTION AND MODULATION
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS A
TITLE OF INVENTION: DISEASE
FILE REFERENCE: 07891/009003
CURRENT APPLICATION UNMBER: US/09/617,053A
CURRENT FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR TILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                            Matches
                                                                                                                                                                     Query Match
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Best Local Similarity 95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS, TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 496
                                                                                                                                                                                                                                                                             ENGTH: 496
                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264 YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY 323
61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 PGCKYL 66
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                                                              1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLITDWKPSEDPWEQHAKWY 60
                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Teang, Benjamin K
Pratt, Christine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baird,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Liston,
                                                                                                                          94.1%;
ilarity 95.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                        Score 366; DB 4; I
Pred. No. 3.3e-40;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 366; DB 3; Length 496
Pred. No. 3.3e-40;
1; Mismatches 2; Indels
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                                                                                                                                                                Length 496
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NUMBER OF SEQ ID NOS: 231
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 225
LENGTH: 496
TYPE: PRT
RORANLISM: Mus musculus
US-09-672-717-225
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CURRENT APPLICATION NUMBER: US/09/011,356A

CURRENT FILING DATE: 1998-09-14

EARLIER APPLICATION NUMBER: PCT/IB96/01022

EARLIER FILING DATE: 1996-08-05

EARLIER APPLICATION NUMBER: 08/576,956

EARLIER FILING DATE: 1995-12-22

EARLIER APPLICATION NUMBER: 08/511,485

EARLIER APPLICATION NUMBER: 08/511,485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 26
US-09-011-356-10
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                                                                                Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 10
                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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Matches 63; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                       APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OF INVENTION: Antisense IAP Nucleic Acids and Uses
TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/672,717
CURRENT FILING DATE: 2000-09-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 PGCKYL 66
                                                               63;
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1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                  Similarity
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                                                               Conservative
                                                                              94.18;
95.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.1%;
                                                           Score 366; DB 4; 1
Pred. No. 3.3e-40;
1; Mismatches 2;
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Pred. No. 3.3e-40;
1; Mismatches 2;
                                                                                                   Length 496;
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                                                             Indels
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003004
CURRENT APPLICATION NUMBER: US/09/201,932A
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1996-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 09/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER REPLING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASISEQ for Windows Version 4.0
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US-09-201-932-10
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LENGTH: 496
TYPE: PRT
  Query Match
Best Local Similarity
Matches 56; Conserv
                                                                                                                                                           SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                            Sequence 4, Application US/09121979 Patent No. 6159709
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                                                                                                                                                                                                                APPLICANT: Korneluk, Robert G.
APPLICANT: Holcik, Martin
APPLICANT: Liston, Peter
TITLE OF INVENTION: XIAP IRES AND USES THEREOF
FILE REFERENCE: 07891/021001
CURRENT APPLICATION NUMBER: US/09/121,979
CURRENT FILING DATE: 1998-07-24
                                                                                                                                                                              NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Mus musculus 
.09-201-932-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Baird, Stephen APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Korneluk, Robert G. APPLICANT: MacKenzie, Alexander E.
                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                       LENGTH: 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 94.1%;
Local Similarity 95.5%;
les 63; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 324 PGCKYL 329
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      Conservative
                    89.2%;
  6;
Score 347; DB 3;
Pred. No. 4.4e-38;
6; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 366; DB 4; Length 496; Pred. No. 3.3e-40; Indels
                                    Length 236;
  Indels
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  0
  Gaps
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CURRENT APPLICATION NUMBER: US/09/332,319
CURRENT FILING DATE: 1999-06-14
EARLIER APPLICATION NUMBER: 09/121,979
EARLIER FILING DATE: 1998-07-24
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 236
TYPE: PRT
ORGANISW: Homo sapiens
US-09-332-319-4
                                                                                                                       SOFTWARE: FastSEQ for wi
SEQ ID NO 2
LENGTH: 236
TYPE: PRT
ORCANISM: Homo sapiens
US-09-239-867-2
                                                                                                                                                                                                            APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS:
TITLE OF INVENTION: MALE FERTILITY
FILE REFERENCE: 07891/018002
CURRENT APPLICATION NUMBER: US/09/239,867
CURRENT FILING DATE: 1999-01-29
PRIOR APPLICATION NUMBER: 60/073,001
PRIOR FILING DATE: 1998-01-29
NUMBER OF SEQ ID NOS: 10
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                                                           Query Match
Best Local S
Matches 56
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Patent No. 6171821
GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Korneluk, Robert G.
APPLICANT: Holcik, Martin
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: XIAP IRES AND USES THEREOF FILE REFERENCE: 07891/021002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64
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1 YEAR1FTFGTW1YSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKDSEDPWEQHAKWY
                                                              56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 YEARLITFGTWMYSVNKEQLARAGFYAIGQEDKVQCFHCGGGLANWKPKEDPWEQHAKWY 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56; Conservative
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                                                                           Similarity
                                                                                                                                                                                                    FastSEQ for Windows Version 4.0
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                                                             Conservative
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                                                                                                                                                                                                                                                                                                                           METHODS AND COMPOUNDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.2%;
                                                                          89.2%;
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                                                           Score 347; DB 3; 1
Pred. No. 4.4e-38;
6; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 347; DB 3;
Pred. No. 4.4e-38;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                          Length 236;
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                                                             Indels
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                                                             Gaps
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64

69

PGCKYL

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Sequence 2, Application US/10024433

Patent No. 6797473

GENERAL INFORMATION:

APPLICANT: Robert G. Korneluk et al.

TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING

TITLE OF INVENTION: MALE PERTILITY

FILE REFERENCE: 07891/01802

CURRENT APPLICATION NUMBER: US/10/024,433

CURRENT FILING DATE: 2001-12-18

PRIOR APPLICATION NUMBER: 09/339,867

PRIOR APPLICATION NUMBER: 09/339,867

PRIOR FILING DATE: 1999-01-29

NUMBER OF SEQ ID NOS: 10

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 33
US-08-657-759-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 32
US-10-024-433-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19, Application US/08657759 Patent No. 6511828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 89.3
Best Local Similarity 84.8
Matches 56; Conservative
            COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/657,759
PILING DATE: 31-MAY-1996
CLASSIFICATION: 536
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: ARCD:220
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Thompson, Craig B.
APPLICANT: Duckett, Colin S.
TITLE OF INVENTION: HUMAN AND DROSOPHILA INHIBITORS
TITLE OF INVENTION: OF APOPTOSIS PROTEINS (IAPB)
NUMBER OF SEQUENCES: 58
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 236
                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                            STREET: P.O. B
                                                                                                                                                                                                                                                                                                                                                  COUNTRY: United States of America ZIP: 77210
TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Arnold, White & Durkee STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 YEARLITFGTWMYSVNKEQLARAGFYAIGQEDKVQCFHCGGGLANWKPKEDPWEQHAKWY 63
                                                                                                                                                                                                                                                                                                                                                                                              Texas
(512) 418-3000
                                                                                                                                                                                                                                                                                                    Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.2%;
84.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 347; DB 4; Length 236
Pred. No. 4.4e-38;
6; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
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RESULT 35 US-08-975-080-29

Sequence 29, Application US/08975080 Patent No. 6245523

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 6245523
GENERAL INFORMATION:
APPLICANT: Altier
                                                             Matches
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                                                                                              Query Match
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                                                                                                                                                                                                                                             TELEPHONE: 202-467-70
TELEFAX: 202-467-7176
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                            FILING DATE: 20-NOV-1996
ATTORNEY AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION UMBER: 30,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 202-467-7000
                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/031,435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Altieri, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 53 amino
TYPE: amino acid
                                                                               Local Similarity
                                                                                                                                                            STRANDEDNESS:
TOPOLOGY: 11
                                                                                                                                                                                             TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/975,080 FILING DATE: 20-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 20036-5869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                 27 ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18 EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66
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49; Conserv
                                                             40;
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Conservative 0; Mismatches
                                                               Conservative
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                                                                                                                                            protein
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SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                             100.0%;
                                                                           64.0%; Score 249; DB 3; 100.0%; Pred. No. 7.2e-26;
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                                                                                                                                                                                                                                                                                                                              30,988
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                                                             0;
                                                               Mismatches
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                                                                                              Length 50;
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40
                                                               Indels
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                                                             Gaps
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RESULT 36
US-08-975-080-32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,080
FILING DATE: 20-NOV-1997
PRIOR APPLICATION NUMBER: US 60/031,435
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7000
                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Altier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 202-467-7176
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Altier
                                             ZIP: 20036-5869
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS: MORGAN, I
                                                                                                                                                                                                                                                                                                                     APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Altieri, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 3
         APPLICATION NUMBER: US/0 FILING DATE: 20-NOV-1997
                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                             ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 202-107176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1800 M St
CITY: Washington
                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                       CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 20036-5869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 ALGEGDKVKCFHCGGGLTDWKFSEDPWEQHAKWYFGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40;
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                                                                                                                                                                                                       D.C
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                                                                                                                                                                                       USA
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SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64.0%;
                                 US/08/975,080
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US-10-138-618-28
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GENERAL INFORMATION:
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TELEPAX: 202-467-7176
INFORMATION FOR SEQ ID NO:
                                                                                                                                                            TELEPHONE: 202-467-7000
TELEFAX: 202-467-7176
INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/975,080
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 100 es 40; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                 TOPOLOGY: linear MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 28:
                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
                                                                                                                                                                                                                       NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Altieri,
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                                                                            TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 20036-5869
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100.0%; Pred. No. 7.2e-26;
rative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US 60/031,435
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SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 50,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                                                          RESULT 39
US-10-138-618-32
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US-10-138-618-29
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Sequence 29, Application vo,...

Sequence 29, Application vo,...

Patent No. 6800737

GENERAL IMPORMATION: Dario C.

APPLICANT: Altieri, Dario C.

TITLE OF INVENTION: SURVIVIN, A PROTEIN THAT INHIBITS

CELLULAR APOPTOSIS, AND ITS MODULAR

CELLULAR APOPTOSIS, AND ITS MODULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/975,080
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022
REGISTRATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7176
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
FENCHILL SO MAINSTAIGS
                                Sequence 32, Application US/10138618
Patent No. 6800737
GENERAL INFORMATION:
APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN,
                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                         Matches
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/10/138,618 FILING DATE: 06-May-2002 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                          27 ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66
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                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
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                Dario C.
SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
   ü
                                                                                                                                                                                                                                                            Score 249; DB 4; ; Pred. No. 7.2e-26;
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MOLECULE TYPE: protein
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SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-138-618-32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 26,
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 202-467-7000
TELEPAX: 202-467-7176
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                  COUNTRY: USA
ZIP: 02110-2804
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/511,485
APPLICATION NUMBER: US/08/511,485
                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MAMMALIAN IAP O
TITLE OF INVENTION: PROBES, AND DET
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                      STREET: 225 F
CITY: Boston
STATE: MA
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT IMPORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-50
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618 FILING DATE: 06-May-2002 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27 ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
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5919912
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/975,080 FILING DATE: 20-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Washington
                                                                                                                                                                                                                                                                                 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                       Mackenzie, Alexander E.
Baird, Stephen
IVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64.0%; Score 249; DB 4; llarity 100.0%; Pred. No. 7.2e-26; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Korneluk, Robert G.
                      04-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                     PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <Unknown>
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ATTORNEY/AGENT INFORMATION:

NAME: Clark, Paul T.

REFERIOTRON UNDER: 30,162

REFERENCE/DOCKET NUMBER: 07540/002001

TELECOMONICATION INFORMATION:

TELECHONE: 617/542-8906

TELEFAX: 617/542-8906

TELEX: 200154

INFORMATION FOR SEQ ID NO: 26:

SEQUENCE CHARACTERISTICS:

LENGTH: 68 amino acidd

STRANDEDNESS: not relevant

TYPE: amino acidd

STRANDEDNESS: not relevant

TOPOLOGY: both

MOLECULE TYPE: protein

US-08-511-485-26

Query Match

Best Local Similarity 57.4%; Pred. No. 1.2e-20;

Matches 39; Conservative 6; Mismatches 21; Indels 2; Gaps 1;

MATCHES 39; CONSERVATIVE 6; MISMATCHES 2; Gaps 1;

ON 1 YEARLFTFTWIYS--VNKEQLARAGFYALGEGDKYKCHCGGGLTDWKPSEDDWEDHAK 58

DB 1 HAARFKTFFNWPSSVLVNPEQLARAGFYAYCHSDDVKCFCCDGGLTDWKDHAK 60

OY 59 WYPGCKYL 66

Db 61 WFPRCEYL 68

Search completed: June 15, 2005, 17:53:09

Job time: 31 secs
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Result
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length: 2000000000
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Match
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2: pir2:*
3: pir3:*
4: pir4:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length DB
                  GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
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ALIGNMENTS

apoptosis inhibitor IAP homolog - human
C;Species: Homo sapiens (man)
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: \$69544; \$68451
R;Duckett, C.S.; Nava, V.E.; Gedrich, R.W.; Clem, R.J.; van Dongen, J.L.; Gilfillan, M.C
EMBO J. 15, 2685-2694, 1996
A;Title: A conserved family of cellular genes related to the baculovirus iap gene and ence A;Title: A conserved family of cellular genes related to the baculovirus iap gene and ence A;Reference number: \$69544; MUID:96256286; PMID:8654366
A;Accession: \$69544
A;Reference number: sceptal mucleic acid sequence not shown
A;Reference representations of the control of the contro A;Molecule type: mRNA A;Residues: 1-497 <DUC>

A;Cross-references: UNIPROT:P98170; EMBL:U32974; NID:g1016687; PIDN:AAC50518.1; PID:g101687; Piston, P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, G.; Farahani, Nature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP A;Reference number: A58182; MUID:96149249; PMID:8552191
A;Accession: 568451

A;Gene: ilp C;Function: A;Molecule type: mRNA A;Residues: 1-161,'C',163-422,'Q',424-497 <LIS> A;Cross-references: EMBL:U45880; NID:g1184319; PIDN:AAC50373.1; PID:g1184320 A;Status: nucleic acid sequence not shown ;Genetics:

A;Description: apoptotic suppressor C;Superfamily: apoptosis inhibitor IAP homolog; C;Keywords: apoptosis; zinc finger C;Keywords: apoptosis; zinc finger F;446-490/Domain: RING finger homology <RRN> Query Match Best Local Matches h 100.0%; Score 389; DB 2; Similarity 100.0%; Pred. No. 1.1e-36; 66; Conservative 0; Mismatches 0; Length 497; Indels <u>,,</u> Gaps

RING finger homology

δ 밁 265 325 61 1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLITDWKPSEDPWEQHAKWY 60 PGCKYL 66 PGCKYL

apoptosis inhibitor hiap-1 - human (Species: Homo sapiens (man) (C;Species: Homo sapiens (man) (C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004 (C;Accession: S68449 (C;Accession: S68449 (C;Accession: P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, O RESULT S68449 K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, G.;

Farahani,

S 밁 Ś

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apoptosis inhibitor - p
C;Species: Sus scrofa d
C;Date: 04-Sep-1998 #se
C;Accession: JC5964
R;Stehlik, C; de Marti
inhibitor of apoptosis protein 3 - Orgyia pseudotsugata nuclear polyhedrosis C;Species: Orgyia pseudotsugata nuclear polyhedrosis virus, OpWNPV C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 15-Sep-2000 C;Accession: T10304 R,Alrens, C.A.; Russell, R.R.; Funk, C.J.; Evans, J.; Harwood, S.; Rohrmann, Virology 229, 381-399, 1997 A;Title: The sequence of the Orgyia pseudotsugata multinucleocapsid nuclear pa;Reference number: Z17011; MUID:97271300; PMID:9126251 A;Accession: T10304 A;Status; preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-268 cAHR> A;Residues: 1-268 cAHR> A;Residues: 1-268 cAHR> A;Residues: 1-268 cAHR> A;Residues: RING finger homology <RRN>
                                                                                                                                                                                                                                                                                                                                                RESULT
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Biochem. Biophys. Res. Commun. 243, 827-832, 1998
A;Title: Cytokine induced expression of porcine inhibitor A;Reference number: JC5964; MUID:98162622; PMID:9501011
A;Accession: JC5964
A;Status: preliminary
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A;Residues: 1-358 <STE>
A;Cross-references: UNIPROT:O62640; GB:U7914:
F;307-351/Domain: RING finger homology <RRN>
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JC5964
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A;Title: Suppression of apor
A;Reference number: A58182;
A;Accession: S68449
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Matches 38
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Sus scrofa domestica (domestic pig)
Sus scrofa domestica (domestic pig)
--- 1000 #000mence revision 04-Sep-1998 #text_change 09-Jul-2004
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Pred. No. 2.9e-16;
6; Mismatches 21;
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Pred. No. 2.9e-16;
7; Mismatches 21;
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HAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFGCDGGLRCWESGDDPWVEHAK

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A;Description: apoptotic suppressor C;Keywords: apoptosis; zinc finger F;567-611/Domain: RING finger homol
                                                                                                                                                                                                                         A;Status: nucleic acid
A;Molecule type: mRNA
A;Residues: 1-618 <LIS>
                                                                                                                                                                                                                                                                                                 R;Liston, P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, Nature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and a related A;Reference number: A58182; MUID:96149249; PMID:8552191
                                                                                                                                                                                                                                                                                                                                                                                                  apoptosis inhibitor hiap-2 - human
C;Species: Homo sapiens (man)
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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S68450
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Virol. 68, 2521-2528, 1994
A; Title: An apoptosis-inhibiting gene from A; Reference number: A53989; MUID:94187094; A; Accession: A53989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        apoptosis-inhibiting protein - Orgyia pseudotsugata multicapsid nuclear polyhedrosis C;Species: Orgyia pseudotsugata multicapsid nuclear polyhedrosis virus, OpMNPV C;Date: 15-Oct-1994 #sequence_revision 15-Oct-1994 #text_change 09-Jul-2004 C;Accession: A53989
                                                                                                                                                                                   A;Cross-references: UNIPROT:Q13490; EMBL:U45879; C;Function:
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A; Residues: 1-268 <BIR>
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A53989
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                                        Query Match
Best Local S
Matches 36
                                                                                                                    Keywords: apoptosis; zinc finger
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1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
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                                        9
                                        Score 198; DB 2;
Pred. No. 9.2e-15;
9; Mismatches 21;
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Pred. No. 6.3e-16;
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3; Mismatches
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Pred. No. 6.3e-16;
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kidney inhibitor of apoptosis protein - human C;Species: Homo sapiens (man) C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004 C;Accession: JC7568 R;Lin, J.H.; Deng, G.; Huang, Q.; Morser, J. Blochem. Blochem. Commun. 279, 820-831, 2000 Blochem. Blochem. anovel member of the inhibitor of apoptosis protein family. A;Title: KIAP, a novel member of the inhibitor of apoptosis protein family. A;Reference number: JC7568; MUID: 21092523; PMID:11162435 A;Contents: Fetal kidney
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                                                                                                                                                                                                                                                                                                                   A;Gene: kiap
A;Map position: 20q13.3
C;Keywords: apoptosis
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A;Residues: 1-298 <LIN>
A;Cross-references: UNIPROT:Q96CA5
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A;Molecule type: DNA
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RESULT 9
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                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
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                                                                                                        60 YPGCKYL 66
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                                                                                                                                                                              EARIFTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKW 59
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                                                             FPSCQFL 154
                                                                                                                                                  ELRLASFYDWPLTAEVPPELLAAAGFFHTGHQDKVRCFFCYGGLQSWKRGDDFWTEHAKW 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WYPGCKYL
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                                                                                                                                                                                                                                                      48.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                  new member of the inhibitor of apoptosis protein family, play
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12; Mismatches
                                                                                                                                                                                                                                      9;
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Pred. No. 3.4e-14;
                                                                                                                                                                                                                                                        Score 188; DB 2;
Pred. No. 6.2e-14;
                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                      23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21; Indels
                                                                                                                                                                                                                                                                             Length 298;
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                    RESULT
S68452
apoptosis inhibitor diap -
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11

fruit fly (Drosophila melanogaster)

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A;Cross-references: UNIPROT:Q9QUK4; EMBL:AF102871; NID:g3860228; PID:g3860229; PIDN:AAC77
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Yaraghi, Z.; Diez, B.; Gros, P.; MacKenzie, A.
Mamm. Genome 10, 761-763, 1999
A;Title: CDNA clonning and the 5'genomic organization of Naip2,
A;Reference number: Z22179; MUID:99315342; PMID:10384056
A;Accession: T42628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Keywords: apoptosis; ATP; glycoprotein; nucleotide binding; P-loop; transmembrane prote F;94-110/Domain: transmembrane #status predicted <TMM1> P;470-47/Region: nucleotide-binding motif A (P-loop) F;479-496/Domain: transmembrane #status predicted <TMM2> F;479-496/Domain: transmembrane #status predicted <TMM2> F;479-6/Binding site: ATP (Lys) #status predicted (Asn) (covalent) #status predicted F;618,632,823,923,1035/Binding site: carbohydrate (Asn) (covalent) #status predicted
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Cell 80, 167-178, 1995.
A;Title: The gene for neuronal apoptosis inhibitory protein is partially deleted in indiv. A;Reference number: A55478; MUID:95112344; PMID:7813013
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
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A; Map position: 5q12.2-5q13
밁
                                                                                                                                                                                                                                                                                                                                      A; Gene: Naip2
                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-1447 < YAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJ
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N;Alternate names: NAIP
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A;Residues: 1-1232 <ROY>
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Best Local Similarity
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                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                 Local
  220
                                                                                                           160 EARLESFEDWPFYAHGTSPRVLSAAGFVFTGKRDTVQCFSCGGCLGNWEEGDDPWKEHAK 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160 EARLASFRNWPFYVQGISPCVLSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAK 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220 WFPKCEFL 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59 MYPGCKYL 66
                                                    59 MANGCKAT 66
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                                                                                                                                                                                                                                                    Similarity
WFPKCEFL 227
                                                                                                                                           EARIFTFGTW----IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                       44.9%; Score 174.5; DB 2;
42.6%; Pred. No. 1e-11;
ative 15; Mismatches 21;
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Pred. No. 4e-12;
6; Mismatches 20;
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C;Superfamily: ap
F;446-490/Domain:
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A;Title: A conserved family of cellular genes related to the baculovirus iap gene and en A;Reference number: S69544; MUID:96256286; PMID:8654366
A;Accession: S69545
A;Accession: S69545
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-497 <DUC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis inhibitor IAP homolog - fruit fly (Drosophila melanogaster) C;Species: Drosophila melanogaster C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text change no-r. C;Accession: S69545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Reference number: 878528
A;Accession: 878528
A;Moleculo
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S69545
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C;Superfamily: apoptosis inhibitor IAP homolog;
C;Keywords: apoptosis; zinc finger
F;445-489/Domain: RING finger homology <RNG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Liston, P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherto Mature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and A;Reference number: A58182; MUID:96149249; PMID:8552191
A;Accession: S68452
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A;Residues: 1-36,'AT',37,'K',39,'L',41-44,'H',46-58,'Q',60-412,'A',414-427,'A',429-496
A;Cross-references: EMBL:U45881; NID:g1184313; PIDN:AAC46988.1; PID:g1184314
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submitted to the EMBL
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A; Residues: 1-496 <LIS>
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                                                                                                                                                                                                                                    ;Superfamily: apoptosis inhibitor IAP homolog; ;446-490/Domain: RING finger homology <RRN>
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;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
;Accession: S68452; S78528
                                                                                                                                                           Matches
                                                                                                                                                                             Query Match
Best Local :
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273
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                                   60 YPGCKYL 66
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                                                                                              2 EARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKW
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                                                                           DARLRTFTDWPISNIQPASALAQAGLYYQKIGDQVRCFHCNIGLRSWQKEDEPWFEHAKW
SPKCQFV 279
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                                                                                                                                                        Conservative
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                                                                                                                                                                           41.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41.6%; Score 162; DB 2;
43.3%; Pred. No. 9.6e-11;
tive 12; Mismatches 24
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                                                                                                                                                           12;
                                                                                                                                                    Score 162; DB 2;
Pred. No. 9.6e-11;
2; Mismatches 24
                                                                                                                                                                                                                                                         RING finger homology
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                                                                                                                                                                                            Length 497
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Virology 229, 381-399, 1997

A;Title: The sequence of the Orgyia pseudotsugata multinucleocapsid A;Reference number: Z17011; MUID:97271300; PMID:9126251

A;Recession: T10310

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Residues: DAA

A;Residues: 1-275 <AHR>
A;Residues: 1-275 <AHR>
A;Residues: 1-275 <AHR

A;Cross-references: EMBL:U75930; NID:92934903; PIDN:AAC59040.1; PID:
                                                                                                                                                                                                                        apoptosis-inhibiting protein 1 - Orgyia pseudotsugata nuclear polyhedrosis virus C;Species: Orgyia pseudotsugata nuclear polyhedrosis virus, OpMNPV C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 15-Sep-2000 C;Accession: T10310 R,R.; Funk, C.J.; Evans, J.; Harwood, S.; Rohrmann, G.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORF MSV248 probable inhibitor of apoptosis protein (IAP) - Melanoplus sanguinipes C. Species: Melanoplus sanguinipes entomopoxvirus C. Jate: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text change no-red C. Accession: T28409
                                                                                                                                                                                                                                                                                                                                                          T10310
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A;Title: The genome of Melanoplus sanguinipes entomopoxvirus A;Reference number: Z20484; MUID:99102612; PMID:9847359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-150 < AFO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Note: MSV248
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mes 27; Conserv
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34.8%;
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45.0%;
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Pred. No. 1.2e-08;
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Pred. No. 4.6e-09;
4; Mismatches 17;
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A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-286 <BRA>
A; Cross-references: UNIPROT: P41435; GB: S52569
A; Cross-references: UNIPROT: F41435; GB: S52569
                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: DNA
A;Residues: 1-199,'L',201-286 <AYR>
A;Cross-references: GB:L22858; NID:
                                                                                                                            R;Ayres, M.D.; Howard, S.C.; Kuzio, J.; Lopez-Ferber, M.; Possee, R.D. Virology 202, 586-605, 1994
A;Title: The complete DNA sequence of Autographa californica nuclear polyhedrosis virus
A;Reference number: A72850; MUID:94303173; PMID:8030224
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A;Residues: 1-4845 <HAU>
A;Cross-references: UNIPROT:O88738; EMBL:Y17267; NID:g3319989; PIDN:CAA76720.1; PID:g33
A;Note: localized to the Golgi compartment and the vesicular system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: A giant ubiquitin-conjugating enzyme related to A;Reference number: 220963; MUID:98292517; PMID:9628897 A;Accession: T31067
                                                                                               A;Accession: C72853
A;Status: preliminary
                                                                                                                                                                                                                                                                                               A;Reference number: A44221; MUID:93079853; PMID:1333113 A;Accession: D36828
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Mus musculus (house mouse)
C;Date: 22-Oct-1999 #sequence_revision 22-Oct-1999 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                    VP8 of rotavirus.
                                                                                                                                                                                                                                                                            Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                         organization of the EcoRI-A fragment of Autographa californi
                                     NID:g510708; PIDN:AAA66657.1;
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; Pred. No. 9e-07;
11; Mismatches 29;
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                                       PID:g559096
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apoptosis inhibitor - Lymantria dispar nuclear polyhedrosis virus (;Species: Lymantria dispar nuclear polyhedrosis virus, LdMNPV C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004 C;Accession: T30489  
R;Kuzio, J.; Pearson, M.N.; Harwood, S.H.; Funk, C.J.; Evans, J.T.; Slavicek, J.M.; Rohrm Virology 255, 17-34, 1999  
A;Title: Sequence and analysis of the genome of a baculovirus pathogenic for Lymantria di A;Reference number: Z20836; MUID:99124785; PMID:9887315  
A;Accession: T30489  
A;Accession: T30489
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J. Gen. Virol. 80, 1123-1137, 1999
A;Title: Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus A;Reference number: Z22020; MUID:99Z81911; PMID:10355780
A;Accession: T41772
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A;Variety: isolate T3
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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A; Residues: 1-155 < KUZ>
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A;Experimental source: isolate T3
                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:Q9YMI9; EMBL:AF081810; PIDN:AAC70325
                                                                                                                                                                                                                                                                                                                                                            A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Experimental source: isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IAP1 orf27
                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                        Query Match
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                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153 IAEAGLFYTGRGDETVCFFCDCCVRDWHINEDAWQRHATENPQCYFV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  153 IAEAGLFYTGRGDETVCFFCDCCVRDWHTNEDTWQRHAAENPQCYFV 199
  67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 LARAGFYALGEGDKVKCFHCGGGLTDWKPSBDFWBQHAKWYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62 GCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bombyx mori nuclear polyhedrosis virus Bombyx mori nuclear polyhedrosis virus, E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18;
                                                                                             7 RLASFRNWSAVDAPAPAELAHAGFYCANRODFVKCAYCHIEIGNWSIGSDAMSDHKRYSP
                                                                                                                                        4 RIFTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1-292 <KAM>
                                                                                                                                                                                                                    Similarity
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ACREV
                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
  71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28.5%;
                                                                                                                                                                                     26.0%; Score 101; DB 2;
29.2%; Pred. No. 0.00028;
tive 13; Mismatches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 111; DB 2;
Pred. No. 3.7e-05;
9; Mismatches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 109; DB 2;
Pred. No. 6.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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BmSNPV
                                                                                                                                                                                                                                          Length 155
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                                                                                                                                                                                          <u>ب</u>
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20

inhibitor homolog T27F2.3 -

Caenorhabditis elegans

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Caenorhabditis elegans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T37471; T25380
R;Uren, A.G.
                                                                                                                       A; Map position: 5
A; Introns: 48/3; 143/1; 191/3
                                                                                                                                                                                                                                                                                                  submitted to the EMBL Data Library, A;Reference number: Z19223
                                                                                                                                                                                                                                                                                                                                      A;Cross-references: UNIPROT:Q18727; R;Percy, C.
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A;Molecule type: mRNA
A;Residues: 1-308 <URE>
                                                                                                                                                                                                                                                                                                                                                                                                                        submitted to the EMBL Data Library, A;Reference number: Z21711
A;Accession: T37474
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A; Accession: T25380
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A;Description: C. elegans IAP homologue
A;Reference number: Z21708
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        submitted to the EMBL Data Library, June 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Lennard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-155 < URE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: T37471
                                                        Matches
                                                                                                                                                             Gene: C50B8.2
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Best Local
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                                                                                                                                        position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   position:
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                                                                        Local
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23;
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                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EHTKRDEPCEFV 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YKDRLMTFKNFEYDRDPDAKCTSQAVAQAGFYCTGP-QSGKCAFCNKEL-DFDPEDDPWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YEARIFTFGTWIY-----SVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWE 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QHAKWYPGCKYL
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                                                        Conservative
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                                                                      24.9%;
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31.9%;
                                                        20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12;
                                       Score 97; DB 2; Lengum ....
Pred. No. 0.0016;
"" ematches 22; Indels
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Pred. No. 0.00037
:2; Mismatches 2
                                                                                                                                                                                                                                                                                                                      July 1996
                                                                                                                                                                                                                                                                                                                                                     EMBL:U72208; PIDN:AAD00182.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                            September
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                January 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIDN:CAA98553.1; GSPDB:GN00023; CESP:T27
                                                                                                                                                                                                              GSPDB:GN00023;
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                                                    10;
                                                                                                                                                                                                                CESP:C50B8.2
                                                    Gaps
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                   51
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A;Gene: cut17; SPCC962.02c;
A;Map position: 3L
A;Introns: 43/3
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                                                                                                                                                                                                                                                                                                           A;Cross-references: EMBL:AL031323; PIDN:CAA20434.1; GSPDB:GN00068; SPDB:SPCC962.02c A;Experimental source: strain 972h-; cosmid 6962 R;Wedler, H.; Duesterhoeft, A.; McDougall, R.C.; Rajandream, M.A.; Barrell, B.G. submitted to the EMBL Data Library, October 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:O14064; EMBL:AB031034; PIDN:BAA83415.1 R;Harris, D.; Wood, V.; Rajandream, M.A.; Barrell, B.G. submitted to the EMBL Data Library, August 1998 A;Reference number: Z22007 A;Accession: T41649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-997 < MOR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Date: 21-Jan-2000 #sequence revision 21-Jan-2000 #text_change 09-Jul-2004 (C;Accession: T41523; T41649; T41700 R;Morishita, J.; Matsusaka, T.; Yanagida, M. submitted to the EMBL Data Library, August 1999 A;Description: Pission yeast cut17 is required for chromosome segregation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Afonso, C.L.; Tulman, E.R.; Lu, Z.; Oma, E.; Kutish, G.F.; J. Virol. 73, 533-552, 1999
A;Title: The genome of Melanoplus sanguinipes entomopoxvirus. A;Reference number: Z20484; MUID:99102612; PMID:9847359
A;Accession: T28403
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C;Accession:
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A; Residues: 1-997 <HAR>
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C;Date: 21-Jan-2000 #sequence_revisi
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A; Residues: 1-329 < AFO>
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                                                                                                                                                                A; Cross-references:
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Query Match
Best Local
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 TYDKWDNSIEIYRMMNAGFTCKGP-SIVECMECRKVLTDWKKGDNPFFEHIYYSKDC 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              52
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                                                                                                                                                                                           932-997
  Similarity
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                                                                                                                                                                                                                  DNA
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                                                                                                                                                                   EMBL: AL121859; PIDN: CAB58376.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22.5%; Score 87.5; I 31.6%; Pred. No. 0.02 tive 10; Mismatches
  30
                                                                                                                    SPDB:SPCP31B10.10c
.38
  Score
Pred.
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  87.5; DB
No. 0.063
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                                                                                                                                                                   GSPDB:GN00068;
                      Length
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salF17R protein - vaccinia virus

N;Alternate names: SalF21R 64.7K protein

C;Species: vaccinia virus

C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 09-Jul-2004

C;Accession: JQ1792; C38550

R;Smith, G.L.; Chan, Y.S.; Howard, S.T.

J. Gen. Virol. 72, 1349-1376, 1991

A;Title: Nucleotide sequence of 42kbp of vaccinia virus strain WR from near

A;Reference number: JQ1767; MUID:91259063; PMID:2045793

A;Accession: JQ1792

A;Molecula fvra. rur
                                                                                                                                                                                                  A;Cross-references: UNIPROT:P24768; DDBJ:D11079; NID:g222717; A;Experimental source: strain WR R;Howard, S.T.; Chan, Y.S.; Smith, G.L. Virology 180, 633-647, 1991
A;Title: Vaccinia virus homologues of the shope fibroma virus A;Reference number: A38550; MUID:91111982; PMID:1846491
                                                               A;Cross-references: GB:M58052
A;Experimental source: strain WR
C;Superfamily: uncharacterized conserved protein with kelch repeats, vaccinia F3L type;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: DNA
A;Residues: 1-564 «JOH»
A;Residues: U-564 «JOH»
A;Cross-references: UNIPROT:P21073
C;Superfamily: uncharacterized conserved protein with kelch repeats, vaccinia F3L type;
F;7-110/Domain: POZ domain homology «POZ»
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C42523
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                                                                                                                            A; Molecule type: DNA
A; Residues: 1-564 < HOW>
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A; Note: host Homo sapiens (man)
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Best Local S
Matches 19
                                                                                                                                                                 Status: preliminary
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                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YSKRLDTFQKKKWPRAKPTPETLATVGFYYNPISESNSEERLDNVTCYMCTKSFYDWEDD 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARIFTFGT----WIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTD------WK 47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EDPWEQHAKWY PGCKY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSEDPWEOHAKW-YPGC
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A33172
                                                       domain
20.4%;
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                                                     homology <POZ>
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Score 79.5;
Pred. No. 0.
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                   Length
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F:261-287/Domain: transmembrane #status predicted <TM1>
F:293-911/Domain: transmembrane #status predicted <TM2>
F:327-348/Domain: transmembrane #status predicted <TM3>
F:349-526/Domain: intracellular #status predicted <INT>
F:527-545/Domain: transmembrane #status predicted <INT>
F:527-545/Domain: transmembrane #status predicted <TM4>
F:655.254.570/Bindlng site: carbohydrate (Asm) (covalent)
F:169-183/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Superfamily: acetylcholine receptor (;Keywords: glycoprotein; ion channel; neurotransmitter receptor; postsynaptic membrane; F;1-41/Domain: stignal sequence #status predicted <SIG> F;1-576/Product: nicotinic acetylcholine receptor alpha-2 chain #status predicted <MAT> F;42-260/Domain: extracellular #status predicted <EXT>
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A;Map position: 3R 96A
A;Introns: 84/3; 136/2; 196/3; 250/1; 445/2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEBS Lett. 269, 264-268, 1990
A;Title: Structure and developmental expression of the D-alpha-2
A;Reference number: S11084; MUID:90353591; PMID:2117557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Baumann, A.; Jonas, P.; Gundelfinger, E.D.
Nucleic Acids Res. 18, 3640, 1990
A;Title: Sequence of D-alpha-2, a novel alpha-like subunit of Drosophila nicotinic acetyl
A;Reference number: S10306; MUID:90301489; PMID:2114015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:X52274; NID:g7802; PIDN:CAA36517.1; PID:g7803
R;Jonas, P.; Baumann, A.; Merz, B.; Gundelfinger, E.D.
FEBS Lett. 269, 264-268, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: UNIPROT:P17644; EMBL:X53583; NID:g8532; A;Note: 232-Ile was also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text_change 09-Jul-2004 C;Accesion: S11679; S10306; S11084 R;Sawruk, E.; Schloss, P.; Betz, H.; Schmitt, B. EMBO J. 9, 2671-2677, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
ACFFA2
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A; Residues: 1-576 < BAU>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nicotinic acetylcholine receptor alpha-2 chain precursor - C;Species: Drosophila melanogaster
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A; Residues: 1-576 < SAW>
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                                                                                                 187
243 CC 244
                                              62 GC 63
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                                                                                                 FGSWTYDGDQIDLK---
                                                                                                                                             FGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSED-----PWEQHAKWYP
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                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                    Score 66;
Pred. No.
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                                                                                                                                                                                                                                           DB 1;
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                                                                                                                                                                                                                                         Length 576
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                                                                                                                                                                                                                                                                                                                   predicted
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                                                                                                                                                                                             Gaps
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                                                                                                 242
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hypothetical protein W03F8.5 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 09-Jul-2004 C;Accession: T15099
R;JOhnson, D; Bradshaw, H.; Keppler, D. submitted to the EMBL Data Library, December 1997
A;Description: The sequence of C. elegans cosmid W03F8.
A;Reference number: Z18293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Pauley, A. submitted to the EMBL Data Library, June 1979 submitted to the EMBL Data Library, June 1979 a. Description: The sequence of C. elegans cosmid E04F6.
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A;Introns: 41/1; 73/2; 127/2; 173/2; 256/3; 367/3
C;Superfamily: Caenorhabditis elegans hypothetical
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T15907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Reference number: A72850; MUID:94303173; PMID:8030224
A;Accession: H72858
                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: UNIPROT:Q19059; EMBL:U28943; NID:g861333; PID:g861337; PIDN:AAA68359
A;Experimental source: strain Bristol N2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein E04F6.6 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change C;Accession: T15907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Note: dsDNA virus
C;Date: 12-Nov-1999 #sequence_revision 12-Nov-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                           RESULT 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-444 <PAU>
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A;Accession: T15907
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A; Residues: 1-249 < AYR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Ayres, M.D.; Howard, S.C.; Kuzio,
Virology 202, 586-605, 1994
A;Title: The complete DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: Ac-IAP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
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Best Local
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                                                                                                                                                                                                                                                                        WYEG-KY 344
                                                                                                                                                                                                                                                                                                              WYPGCKY 65
                                                                                                                                                                                                                                                                                                                                                   GTWSVKGIPYYPINEE-----GAIGAGRLMNVPFGSWGGGYSDHIGVRDYWSQYQEIGAN 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SVNKEQLARAGEYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                       GTW-----IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQH----AK 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVVVDMLARRGFYYFGKAGHLRCSGC-HIVFKYKSVDDAQRRHKQ---NCKFL 151
                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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Pred. No. 5.9;
10; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 65; DB
Pred. No. 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
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      A; Cross-references:
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C;Species: arabis mosaic virus
C;Date: 31-Mar-1992 #sequence revision 31-Mar-1992 #text_change 09-Jul-2004
C;Accession: PQ0219; PQ0220
R;Bertioli, D.J.; Harris, R.D.; Edwards, M.L.; Cooper, J.I.; Hawes, W.S.
J. Gen. Virol. 72, 1801-1809, 1991
                                                                                                                                                                                                                                                                                                                   RESULT 31
PQ0219
  A; Molecule type: genomic RNA
A; Residues: 1-737 <BER>
                                                A,Title: Transgenic plants and insect cells expressing the coat protein of A,Reference number: PQ0219; MUID:91341466; PMID:1875193 A,Accession: PQ0219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-57/Product: nicotinic acetylcholine receptor alpha-II chain #status predicted <MAT:
F;245-266/Domain: transmembrane #status predicted <TM1>
F;245-295/Domain: transmembrane #status predicted <TM2>
F;308-329/Domain: transmembrane #status predicted <TM3>
F;501-523/Domain: transmembrane #status predicted <TM4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Marshall, J.; Buckingham, S.D.; Shingai, R.; Lunt, G.G.; Goosey, M.W.; Darlison, EMBO J. 9, 4391-4398, 1990
A;Title: Sequence and functional expression of a single alpha subunit of an insect A;Reference number: S12359; MUID:91092263; PMID:1702381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Map position: 4
A;Introns: 99/2; 255/2; 365/2; 435/3; 565/2; 975/2; 1055/2; A;Introns: 99/2; 255/2; 365/2; 435/3; 565/2; 975/2; 1055/2; C;Superfamily: laminin beta-1 chain; laminin-type EGF-like homology <LEG> F;797-842/Domain: laminin-type EGF-like homology <LEG>
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A;Residues: 1-1808 <JOH>
A;Cross-references: UNIPROT:O44565; EMBL:AF039041; NID:g2736380; PID:g2736388; PIDN:AAB94
A:Experimental source: strain Bristol N2; clone W03F8
                                                                                                                                                                                                                                                               N; Contains: coat protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nicotinic acetylcholine receptor alpha-L1 chain precursor -
C;Species: Schistocerca gregaria (desert locust)
A;Residues:
                                                                                                                                                                                                                                                                                     RNA-2 polyprotein - arabis mosaic virus (fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Keywords: glycoprotein; ion channel; neurotransmitter receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:P23414; EMBL:X55439; NID:g10133; PIDN:CAA39081.1; PID:g10134
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A; Residues: 1-180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52 - PWEQHAKWYPGC
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24.7%;
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25.0%;
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Pred. No. 15;
9; Mismatches
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43;
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G.
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UNIPROT: Q65028;

GB:D10086; NID:G221017;

PIDN:BAA00982.1;

PID:d1001450

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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-607 <LYNN
A;Residues: 1-607 <LYNN
A;Residues: 1-607 <LYNN
A;Cross-references: UNIPROT:060164; EMBL:AL022599; PIDN:CAA18653.1; GSPDB:GN00067; SPDB:A;Cross-references: strain 972h-; cosmid c19F5
A;Experimental source: strain 972h-; cosmid c19F5
R;Lyne, M.; Rsjandream, M.A.; Barrell, B.G.; Whithead, S.; Chillingworth, T.; Churcher, submitted to the EMBL Data Library, July 1998
                                                                                                                                                                                          hypothetical protein SPBC19F5.05c SPBC25D12.01c - fission yeast (Schizosaccharomyces C;Speciaes: Schizosaccharomyces pombe C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004 C;Accession: T39823; T39989 R;Lyne, M.; Wood, V.; Rajandream, M.A.; Barrell, B.G.; Bothe, G.; Pohl, T. submitted to the EMBL Data Library, April 1998
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S13720
                                                                                                                                                          A; Reference number: Z21882
A; Accession: T39823
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A;Title: Nucleotide sequence of AMV-capsid protein-gene.
A;Reference number: S13720; MUID:91088343; PMID:2263501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: arabis mosaic virus
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 09-Jul-2004
C;Accession: S13720; S77995
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C;Keywords: polyprotein
F;233-737/Product: coat protein #status experimental
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A;Molecule type: protein A;Residues: 233-252 <BEZ>
C;Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: protein A; Residues: 2-21 < HIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:P24819; EMBL:X55460 A;Accession: S77995
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A; Residues: 1-506 <STE>
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Pred. No. 20
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A;Molecule type: mRNA
A;Residues: 1-324 <DAV>
A;Cross-references: UNIPROT:Q41097; EMBL:L20233; NID:g309838; PID:g309839
                                                                                                                                                                                                                                                                     C;Accession: 839502
R;Davis, J.M.; Egelkrout, B.B.; Coleman, G.D.; Chen, T.H.H.; Haissig, B.B.; Riemenschneic Plant Mol. Biol. 23, 135-143, 1993
A;Title: A family of wound-induced genes in Populus shares common features with genes enc A;Reference number: 839502; MUID:94033285; PMID:8106009
                                                                                                                                                                                                                                                                                                                                                                                     vegetative storage protein win4.5 - western balsam poplar x cottonwood (fragment) C;Species: Populus trichocarpa x Populus deltoides (western balsam poplar x cottonwood) C;Date: 13-Jan-1995 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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C;Accession: T30427
C;Accession: T30427
C;Accession: T30427
C;Accession: T30427
Evans, J.T.; Slavicek, J.M.; Rohrn
R;Kutio, J.; Pearson, M.N.; Harwood, S.H.; Funk, C.J.; Evans, J.T.; Slavicek, J.M.; Rohrn
R;Kutiology 253, 17-34, 1999
A;Title: Sequence and analysis of the genome of a baculovirus pathogenic for Lymantria di A;Reference number: Z20836; MUID:99124785; PMID:9887315
A;Accession: T30427
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A;Residues: 1-234 <KUZ>
A;Cross-references: UNIPROT:Q9YMP8; EMBL:AF081810; PIDN:AAC70265.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            probable apoptosis inhibitor - Lymantria dispar nuclear polyhedrosis virus
C;Species: Lymantria dispar nuclear polyhedrosis virus, LdwNPV
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-200.
                                                                                                                                                                                                                                                    A; Accession: S39502
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A;Residues: 1-454 <LY2>
A;Cross-references: EMBL:AL031158; PIDN:CAA20097.1; GSPDB:GN00067; SPDB:SPBC25D12.01c
A;Bxperimental source: strain 972h-; cosmid c25D12
C;Genetics:
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A; Introns: 8/1; 64/1
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A; Molecule type: DN
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                                           FGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTD--WKPSEDPW 53
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FGEFNYPVNGENLLASVDY-----DKVKLFSKGHSPQDVFWFPSTTSW 200
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 Mismatches

                                                                                                              Score 62.5;
Pred. No. 1
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Pred. No. 9.4;
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Pred. No. 2:
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                                                                                                                                   Length 324;
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A; Molecule type: mRNA
A; Residues: 1-352, 'G', 354-532 < DA2>
A; Cross-references: UNIPROT: P16264; GB: J04518
A; Cross-references: UNIPROT: P16264; GB: J04518
A; Cross-references: UNIPROT: P16264; GB: J04518
A; Note: the authors translated the codon CAC for residue 353 as Gly
A; Note: part of this sequence was confirmed by protein sequencing
C; Keywords: membrane protein
F; 1-30/Domain: signal sequence #status predicted <SIG>
F; 31-532/Product: speract receptor #status predicted <MAT>
F; 40-144/Domain: scavenger receptor cysteine-rich domain homology <SRC1>
F; 150-257/Domain: scavenger receptor cysteine-rich domain homology <SRC3>
F; 261-366/Domain: scavenger receptor cysteine-rich domain homology <SRC3>
F; 379-485/Domain: scavenger receptor cysteine-rich domain homology <SRC4>
C;Species: Mus musculus (house mouse)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 09-Jul-2004
C;Accession: S28419
R;Furukawa, K.; Hotta, Y.
EMBO J. 12, 97-106, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; ROLLECUA: 1F. A; Residues: 1-249 < KAM>
A; Cross-references: UNIFROT: 092435;
A; Cross-references: UNIFROT: 1801ate T3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R.Gomi, S.; Majima, K.; Maeda, S.
J. Gen. Virol. 80, 1323-1337, 1999
A;Title: Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus.
A;Reference number: Z22020; MUID:99281911; PMID:10355780
A;Accession: T41814
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IAP2 orf71 - Bombyx mori nuclear polyhedrosis virus (isolate C;Species: Bombyx mori nuclear polyhedrosis virus, BmSNPV A;Variety: isolate T3 C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_chan C;Accession: T41814
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A;Title: Cloning of the mRNA for the protein that crosslinks A;Reference number: A32751; MUID:89184581; PMID:2538832
A;Accession: A32751
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c;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 09-Jul-2004
C;Accession: A32751; A31267
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17; Conserv
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25.4%; Pred. No. 24;
7ative 12; Mismatches
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Pred. No. 13;
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sequences in GenBank
R; Boeger, T.H.; Zatloukal, K.; Waizenegger, I.; Krohne,
Chromosoma 100, 67-69, 1990
A; Reference number: A56583; MUID:91339548; PMID:2102440
A; Contents: annotation; errarum
A; Mote: corrects transposition of Figs. 5 and 6
R; Weber, K.; Plessmann, U.; Traub, P.
PEBS Lett. 261, 361-364, 1990
PEBS Lett. 261, 361-364, 1990
                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Molecule type: protein
A;Residues: 182-206;234-286;290-313,'R',315-317,'X',319;364-401;466-479,'X',481-492
R;Rasahara, K.; Chida, K.; Tsunenaga, M.; Kohno, Y.; Ikuta, T.; Kuroki, T.
J. Biol. Chem. 266, 20018-20023, 1991
J. Biol. Chem. 266, 20018-20023, 1991
A;Title: Identification of lamin B-2 as a substrate of protein kinase C in BALB/MK-2
A;Reference number: A41068; MUID:92041823; PMID:1939065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C.Species: Mus musculus (house mouse,
C.Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text_change
C.Accession: B48315; S08264; A41068; A56583; S21609
R:Hoeger, T.H.; Zatloukal, K.; Waizenegger, I.; Krohne, G.
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A;Residues: 165-166, 'X',168,'X',170-172;254-258,'X',260-262;478-479,'X',481-483,'X',485-4
C;Superfamily: cytoskeletal keratin
C;Keywords: nucleus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Title: Protein chemical analysis of purified murine lamin B A; Reference number: S08264; MUID:90184481; PMID:2311764
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A;Title: Characterization of a second highly conserved B-type A;Reference number: A48315; MUID:91106216; PMID:2102682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Reference number: A; Accession: S08264
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A; Residues: 1-474 < FUR>
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A; Reference number: S28419; MUID:93154351; PMID:8094052
                                                                                                                                                                                                                                                                                  A; Accession: A41068
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A; Residues: 1-592 < HOE>
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35.1%;
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nicotinic acetylcholine receptor alpha C;Species: Caenorhabditis elegans C;Date: 21-Jan-2000 #sequence_revision C;Accession: T43634

chain -

Caenorhabditis elegans

21-Jan-2000 #text_change 09-Jul-2004

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Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                Cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/USO9A_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/USO9A_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/USOA_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
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     GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
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                   US-09-201-936-25

US-09-600-272-25

US-09-965-967-20

US-09-964-433-4

US-09-964-899-39

US-09-974-592-4

US-09-974-592-4

US-09-201-936-4

US-09-201-936-4

US-10-366-307-2

US-10-366-307-2
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Sequence 25, Appl
Sequence 20, Appli
Sequence 20, Appli
Sequence 34, Appli
Sequence 39, Appli
Sequence 4, Appli
Sequence 21, Appli
Sequence 219, Appli
Sequence 219, Appli
Sequence 219, Appli
Sequence 214, Appli
Sequence 214, Appli
Sequence 217, Appli
Sequence 218, Appli
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ALIGNMENTS

RESULT 1 US-09-201-936-25

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NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 25
LENGTH: 66
TYPE: PRT
ORGANIZM: Homo sapiens
US-09-201-936-25
                                                                                                                                                                                                                                                                                           FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER FILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
Query Match
Best Local Similarity
Matches 66; Conserv
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Publication No. US20020187946A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PR
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
100.0%; Score 389; DB 9; ilarity 100.0%; Pred. No. 3.1e-39; Conservative 0; Mismatches 0;
                                             Length 66
  Indels
0
Gaps
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US-09-201-936-24

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-965-967-20
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US-09-965-967-20
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FILE REFERENCE: 07891/003006
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR PILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR FILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                    Sequence 20, Application US/09965967
Patent NO. US20020177557A1
GENERAL INFORMATION:
APPLICANT: Shi, Yigong
TITLE OF INVENTION: Compositions And Methods For Regulating Apoptosis
FILE REFERENCE: PU-0031 (01-1739-1)
CURRENT APPLICATION NUMBER: US/09/965,967
CURRENT FILING DATE: 2001-09-28
PRIOR APPLICATION NUMBER: 60/236,574
PRIOR PILING DATE: 2000-09-29
PRIOR PILING DATE: 2000-012-20
PRIOR PILING DATE: 2000-12-20
PRIOR PILING DATE: 2000-12-20
                                                              SOFTWARE: PatentIn version 3.1
SEQ ID NO 20
LENGTH: 107
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LENGTH: 66
TYPE: PRT
ORGANISM: Homo sapiens
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Best Local (
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Publication No. US20040157232A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                      NUMBER OF SEQ ID NOS: 30
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; Sequence 4, Application US/10024433
; Publication No. US20020086409A1
; GENERAL IMFORMATION:
; APPLICANT: Robert G. Korneluk et al.
; TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING
; TITLE OF INVENTION: MALE FERFILLITY
; FILE REFERENCE: 07891/01802
; CURRENT APPLICATION NUMBER: US/10/024,433
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: 09/339,867
; PRIOR APPLICATION NUMBER: 09/339,867
; PRIOR FILING DATE: 1999-01-29
                                                                  US-09-964-899-39
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US-10-024-433-4
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                                                                                                                                                                                                      Sequence 39, Application US/09964899
Patent No. US20020174446A1
GENERAL INFORMATION:
APPLICANT: Cohen, Dalia et al.
TITLE OF INVENTION: Identification of Genes Involved in
TITLE OF INVENTION: Alzheimer's Disease Using Drosophila Melanogaster
FILE REFERENCE: 4-31612 A
CURRENT APPLICATION NUMBER: US/09/964,899
CURRENT FILING DATE: 2001-09-27
PRIOR APPLICATION NUMBER: 60/236,893
PRIOR FILING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/298,309
PRIOR FILING DATE: 2001-09-29
PRIOR APPLICATION NUMBER: 60/298,309
PRIOR FILING DATE: 2001-06-14
                                                                                                                           SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 39
LENGTH: 278
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SOFTWARE: FREESEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 236
Query Match
Best Local Similarity
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Best Local Similarity
                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
                                                                               TYPE: PRT
ORGANISM: Homo
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100.0%;
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Score 389; DB 9; Pred. No. 1.4e-38;
                 Length 278;
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Matches

66; Conservative

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Gaps

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CURRENT APPLICATION NUMBER: US/09/974,592
CURRENT FILING DATE: 2001-10-09
PRIOR APPLICATION NUMBER: US 09/617,053
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: FRABLSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 497
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIME
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 0789/03003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
FEARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: 09/01022
EARLIER APPLICATION NUMBER: PCT/1896/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
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; ORGANISM: Homo mapiens
US-09-974-592-4
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APPLICANT: MacKenzie, Alexander E
APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MC
TITLE OF INVENTION: NAIP FOR THE DI
TITLE OF INVENTION: DISEASE
TITLE OF INVENTION: DISEASE
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Best Local S
Matches 66
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APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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Similarity 100.0%; (
66; Conservative 0;
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Pred. No. 2.6e-38;
; Mismatches 0;
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DIAGNOSIS /
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TREATMENT OF PROLIFERATIVE
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; LENGTH: 497
; TYPE: PRT
; ORGANISM: Homo s
US-10-366-307-2
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-201-936-4
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            APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
TITLE OF INVENTION: Antisense IAP Nucleic Ac
TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025005
CURRENT APPLICATION UMBER: US/10/636,065
CURRENT FILING DATE: 2003-08-07
                                                                                                                                                                                                                                            US-10-636-065-219
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                                                                                                                                                                                                      Sequence 219, Application US/10636065
Publication No. US20040127694A1
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
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Publication No. US20030224399A1
GENERAL INFORMATION:
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Best Local Similarity
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CURRENT FILING DATE: 2003-02-12
PRIOR APPLICATION NUMBER: US 60/356,956
PRIOR FILING DATE: 2002-02-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Reed, John C.
TITLE OF INVENTION: Methods for Determining the Prognosis
TITLE OF INVENTION: for Patients with a Prostate Neoplastic Condition
FILE REFERENCE: P-LJ 5659
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EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
PRIOR APPLICATION NUMBER: 09/672,717
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Pred. No. 2.6e-38;
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RESULT 11
US-09-201-936-24
Sequence 24, Application US/09201936
Publication No. US20020187946A1
GENERAL INFORMATION:
APPLICANT: KORNELNK, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR PILING DATE: 1996-08-05
PRIOR PILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR PILING DATE: 1995-12-22
PRIOR APPLICATION NUMBER: US 08/511,485
PRIOR PILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-600-272-4
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US-10-600-272-4
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APPLICANT: KOTHELLK, ROBERT G.
APPLICANT: MACKENZIE, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Baird, Stephen
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
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LENGTH: 497
TYPE: PRT
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Best Local Similarity
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NUMBER OF SEQ ID NOS: 231
SOFTMARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                PGCKYL 330
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; PRIOR APPLICATION NUMBER: US 08/511,485; PRIOR FILING DATE: 1995-08-04; NUMBER OF SEQ ID NOS: 45; SOPTWARE: FASTSEQ for Windows Version 4.0; SEQ ID NO 24; SEQ ID NO 24; LENGTH: 66; TYPE: PRT; ORGANISM: Mus musculus
US-10-600-272-24
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CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1996-09-05
EARLIER FILING DATE: 1996-09-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FBATESQ for Windows Version 3.0
SEQ ID NO 24
LENGTH: 66
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Best Local Similarity
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Publication No. US20040157232A1
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Best Local Similarity
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PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR FILING DATE: 1995-12-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
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                            YBARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY
YEARIVTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWDQHAKCY
                                                                                            Conservative
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                                                                                                                 94.1%;
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                                                                                   Score 366; DB Lo;
Pred. No. 1.9e-36;
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Pred. No. 1.9e-36;
"Mismatches 2;
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RESULT 13 US-09-974-592-10

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APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: DETECTION AND TREATMENT OF PROLIFERATIVE
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
TITLE OF INVENTION: NDISEASE
FILE REFERENCE: 07991/099004
CURRENT APPLICATION NUMBER: US/09/974,592
CURRENT APPLICATION NUMBER: US 09/617,053
PRIOR APPLICATION NUMBER: US 09/617,053
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR APPLICATION NUMBER: US 08/800,929
PRIOR FILING DATE: 1997-02-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: FastSEQ for Windows Version 4.0
TENGTH: 496
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIME:
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 0789/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/01,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PastSEQ for Windows Version 3.0
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-974-592-10
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Best Local Similarity 95.9
Matches 63; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
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95.5%;
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Pred. No. 1.6e-35;
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CURRENT APPLICATION NUMBER: US/10/636,065; CURRENT FILING DATE: 2003-08-07; PRIOR APPLICATION NUMBER: 09/672,717; PRIOR FILING DATE: 2000-09-28; NUMBER OF SEQ ID NOS: 231; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 225; LENGTH: 496
APPLICANT: KOTHELIK, Robert G.
APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMER
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
TITLE REFERENCE: 07891/003006
CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1998-02-04
PRIOR FILING DATE: 1996-08-05
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US-10-636-065-225
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Best Local Similarity
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Baird, Stephen APPLICANT: Holcik, Martin APPLICANT: Young, Sean
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APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
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ORGANISM: Mus musculus
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o. US20040127694A1
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Pred. No. 1.6e-35;
1; Mismatches 2
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Pred. No. 1.6e-35;
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Sequence 2, Application US/10024433
; Publication No. US20020086409A1
; GENERAL INFORMATION:
APPLICANT: Robert G. Korneluk et al.
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR MODULATING
TITLE OF INVENTION: MALE FERTILITY
FILE REFERENCE: 07891/018002
; CURRENT APPLICATION NUMBER: US/10/024,433
; CURRENT FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: 09/239,867
PRIOR FILING DATE: 1999-01-29
; NUMBER: OF SEQ ID NOS: 10
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 236
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US-10-024-433-2
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US-10-482-952-5
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US-10-482-952-5
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Publication No. US20040254136A1
GENERAL INFORMATION:
APPLICANT: The Trustees of Columbia University in the City of New York, et al.
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES AND RELATED METHODS FOR REGULATING CEL
FILE REFERENCE: 0575/64078-A-PCT/JPW/ANX
CURRENT APPLICATION NUMBER: US/10/482,952
CURRENT FILING DATE: 2004-01-05
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Best Local
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LENGTH: 496
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SOFTWARE: PatentIn version 3.1
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PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FASTSEQ for Windows Version 4.0
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TYPE: PRT
ORGANISM: Mus musculus
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95.5%;
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Pred. No. 7.8e-34;
1; Mismatches 4;
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Pred. No. 1.6e-35;
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US-10-138-0_
US-10-138-0_
; Sequence 28, Ap-
; Publication No. US200_
; Publication No. HIS200_
; GENERAL INFORMATION:
; GENERAL INFORMATION:
STITLE OF INVENTION:

COMMENTALIZATION:

OF INVENTION:

OF INVENTION
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-343-115-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/343,115
CURRENT FILING DATE: 2003-09-17
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/10343115
Publication No. US20040072999A1
GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local Similarity
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TITLE OF INVENTION: Novel inl
FILE REFERENCE: IAPL-7BHWS
                     COUNTRY: USA
ZIP: 20036-5869
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       292 PGCKYL 297
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                                                                                                                                                                                                                                                                                                                                                                             CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10138618
No. US20030100525A1
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SURVIVIN, A PROTEIN THAT INHIBITS
CELLULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibitor of apoptosis protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6,
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Pred. No. 1.4e-33;
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Pred. No. 2.9e-33;
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US-10-138-618-29
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Publication No. US20030100525A1
GENERAL INFORMATION:
APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 50 amino acids
TYPE: amino acid
                                                                                                                          TELEFAX: 202-467-7176 INFORMATION FOR SEQ ID NO: 29:
                                                                                                                                                           COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION NUMBER: US 08/975,080
PRIOR APPLICATION NUMBER: US 08/975,080
PRILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022-01-WO
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7000
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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PILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
PILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-467-7000
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                                                                                                     SEQUENCE CHARACTERISTICS:
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MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Washington
                                    TYPE: amino acid
STRANDEDNESS: <Unknown>
                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: <Unknown>
                                                                               LENGTH: 50 amino acids
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RESULT 23 US-09-201-936-26

Sequence 26, Application US/09201936 Publication No. US20020187946A1 GENERAL INFORMATION:

APPLICANT: Korneluk,

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US-10-138-618-32
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                                                                       Query Match
                                                                     Matches
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Best Local
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Altieri, Dario C.
APPLICANT: Altieri, Dario C.
TITLE OF INVENTION: SURVIVIN, A PROTEIN THAT INHIBITS
CELULAR APOPTOSIS, AND ITS MODULATION
                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/975,080
FILING DATE: 20-NOV-1997
APPLICATION NUMBER: US 60/031,435
FILING DATE: 20-NOV-1996
ATTORNEY/AGENT INFORMATION:
NAME: Adler, Reid G.
REGISTRATION NUMBER: 30,988
REFERENCE/DOCKET NUMBER: 044574-5022
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTMARE: PATENETH Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/138,618
FILING DATE: 06-May-2002
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                      27 ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
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                                                                     40;
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ALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
                                                                                                                                                                                              STRANDEDNESS: <Unknown>
TOPOLOGY: linear
                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP STREET: 1800 M Street, N.W.
                                                                                                                                                                                                                                                                                                        TELEPHONE: 202-467-7000
TELEFAX: 202-467-7176
                                                                                                                                                                                                                                                   ENGTH: 50 amino acids
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                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                64.0%; Score 249; DB 14; 100.0%; Pred. No. 1.9e-22; tive 0; Mismatches 0;
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Pred. No. 1.9e-22;
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                                                                                                     Length 50;
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CURRENT APPLICATION NUMBER: US/10/600,272
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR FILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-12-22
PRIOR PILING DATE: 1995-12-23
PRIOR PILING DATE: 1995-09-04
NUMBER OF SEQ ID NOS: 45
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 26
LENGTH: 68
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; Sequence 26, Application US/10600272
; Publication No. US20040157232A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MANALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-10-04
EARLIER APPLICATION NUMBER: 08/571,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER APPLICATION NUMBER: 08/511,485
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US-09-201-936-26
                                                                   Query Match
Best Local Similarity
Matches 39; Conserv
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SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 26
LENGTH: 68
TYPE: PRT
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Best Local Similarity
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APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRINTITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003006
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APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                         ORGANISM: Homo sapiens
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1 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 60
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                                                                             Conservative
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                                                                                             54.28;
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                                                                     Score 211; DB 16;
Pred. No. 1.1e-17;
6; Mismatches 21;
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Pred. No. 1.1e-17;
6; Mismatches 21
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Sequence 9, Application US/10482952

Publication No. US20040254136A1

GENERAL INFORMATION:
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; SOFTWARE: FASTSEQ for Windows Version 4.0

; SEQ ID NO 6

; LENGTH: 604

; TYPE: PRT

; ORGANIAM: Homo sapiens

US-09-974-592-6
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; SEQ ID NO 9
; LENGTH: 557
; TYPE: PRT
; ORGANISM: human
US-10-482-952-9
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                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                     Matches
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Best Local Similarity
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APPLICANT: Tsang, Benjamin K
APPLICANT: Trang, Benjamin K
APPLICANT: Pratt, Christine
TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
TITLE OF INVENTION: DISEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: US (
PRIOR FILING DATE: 1997-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/974,592
CURRENT FILING DATE: 2001-10-09
PRIOR APPLICATION NUMBER: US 09/617,053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexan
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1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK
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57.4%;
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                                                                                                             Score 211; DB 9;
Pred. No. 1.1e-16;
6; Mismatches 21
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Pred. No. 9.8e-17;
6; Mismatches 21;
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AND RELATED METHODS FOR REGULATING CELI
                                                                                                                                                                                 Length 604;
                                                                                                                 Indels
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255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314

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TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCES: 07981/03003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER FILING DATE: 1998-02-04
EARLIER FILING DATE: 1998-02-04
EARLIER RILING DATE: 1996-08-05
EARLIER APPLICATION NUMBER: 08/576,956
EARLIER APPLICATION NUMBER: 08/511,485
EARLIER FILING DATE: 1995-08-04
NUMBER: 08/501,485
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US-10-232-286-4
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-201-936-6
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US-09-201-936-6
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APPLICANT: MacKenzie, Alexander E.
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                  Goeddel, David V
TITLE OF INVENTION: INHIBITORS OF APOPTOSIS
NUMBER OF SEQUENCES: 14
SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/10/232,286
                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Rothe, Mike
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                                                                                                                                                                                                                          ADDRESSEE: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT STREET: 4 Embarcadero Center, Suite 3400 CITY: San Francisco STATE: California
                                                                                                                                                                                  ZIP: 9411:
                                                                                                                                                                                                          COUNTRY: USA
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TITLE OF INVENTION: Methods For Determining the Prognosis
TITLE OF INVENTION: For Cancer Patients Using Tucan
FILE REFERENCE: P-LJ 5254
CURRENT APPLICATION NUMBER: US/10/141,618
CURRENT FILING DATE: 2002-05-07
PRIOR APPLICATION NUMBER: US 60/289,233
PRIOR FILING DATE: 2001-05-07
PRIOR APPLICATION NUMBER: US 60/356,934
PRIOR APPLICATION NUMBER: US 60/356,934
PRIOR APPLICATION NUMBER: US 60/388,221
PRIOR APPLICATION NUMBER: US 90/388,221
PRIOR APPLICATION NUMBER: US 90/388,221
PRIOR APPLICATION DATE: 1999-09-01
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                                                                                                                                                                                                                                           US-10-141-618-6
                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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Publication No. US20030165887A1
GENERAL INFORMATION:
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                                                                                                                                                              Matches
                                                                                                                                                                           Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo
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                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: (415)781-1989
TELEFAX: (415)398-3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/569,749
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
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315 WEPRCEYL 322
                                       59 WYPGCKYL 66
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                                                                                                          1 YBARIFTEGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                              39;
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                                                                             HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Brezner, David J.
REGISTRATION NUMBER: 24,774
REFERENCE/DOCKST NUMBER: A-62464/DJB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 604 amino acids TYPE: amino acid
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CLASSIFICATION: <Unknown
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                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                              sapiens
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                                                                                                                                                            Score 211; DB 14;
Pred. No. 1.1e-16;
6; Mismatches 21;
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Pred. No. 1.1e-16;
6; Mismatches 21;
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US-10-636-065-221
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US-10-636-065-221
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US-10-366-307-6
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; ORGANISM: Homo sapiens
US-10-366-307-6
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SOFTWARE: FRATSEQ for Windows Version 4.0
SEQ ID NO 221
LENGTH: 604
TYPE: PRT
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Publication No. US20030224399A1
GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                            Matches
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Best Local Similarity
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TITLE OF INVENTION: Thereof
FILE REFERENCE: 07891/025005
CURRENT APPLICATION NUMBER: US/10/636,065
CURRENT FILING DATE: 2003-08-07
PRIOR APPLICATION NUMBER: 09/672,717
PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Korneluk, Robert G.
APPLICANT: LaCasse, Eric
APPLICANT: Baird, Stephen
APPLICANT: Holcik, Martin
APPLICANT: Young, Sean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/366,307
CURRENT FILING DATE: 2003-02-12
PRIOR APPLICATION NUMBER: US 60/356,956
PRIOR FILING DATE: 2002-02-12
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FastSEQ for Windows Version 4.0
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TITLE OF INVENTION: Methods for Determining the Prognosis

TITLE OF INVENTION: for Patients with a Prostate Neoplastic Condition

FILE REFERENCE: P-LJ 5659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 604
315 WFPRCEYL 322
                                                                          255 HAARFKTFFNWPSSYLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION:
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                                     59 WYPGCKYL 66
                                                                                                                                                            39;
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                                                                                                               1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39,
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57.4%;
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                                                                                                                                                      Score 211; DB 16;
Pred. No. 1.1e-16;
6; Mismatches 21;
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Pred. No. 1.1e-16;
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RESULT 32

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-730-476A-79
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; ORGANISM: Homo
US-10-600-272-6
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CURRENT APPLICATION NUMBER: US/10/600,272

CURRENT FILING DATE: 2003-06-20

PRIOR APPLICATION NUMBER: US 09/011,356

PRIOR PILING DATE: 1998-02-04

PRIOR APPLICATION NUMBER: PCT/1B96/01022

PRIOR FILING DATE: 1996-08-05

PRIOR APPLICATION NUMBER: US 08/576,956

PRIOR APPLICATION NUMBER: US 08/576,956

PRIOR APPLICATION NUMBER: US 08/511,485

PRIOR FILING DATE: 1995-12-22

PRIOR FILING DATE: 1995-08-04
                                                                                                                                                                                                                                                                                                                                               Sequence 79, Application US/10730476A
Publication No. US20040171105A1
GENERAL INFORMATION:
APPLICANT: Du, Chunying
APPLICANT: Yang, Qiheng
TITLE OF INVENTION: Method and Composition for Cleaving IAPB
FILE REFERENCE: 40716 (IP-022)
CURRENT APPLICATION NUMBER: US/10/730,476A
CURRENT FILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 83
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Best Local Similarity
Matches 39; Conserv
                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.2 SEQ ID NO 79
                                                                                                                                                                         Query Match
Best Local Similarity
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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Publication No. US20040157232A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Korneluk, Robert G.
APPLICANT: MacKenzie, Alexand
APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Liston, Peter TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS, TITLE OF INVENTION: PROBES, AND DETECTION METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
315 WFPRCEYL 322
                                                                           255 HAARFKTFFNWPSSVLVNPEQLASAGFYYVGNSDDVKCFCCDGGLRCWESGDDPWVQHAK 314
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                                    59 WYPGCKYL 66
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                                                                                                      1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAK 58
                                                                                                                                                       39; Conservative
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Baird, Stephen
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                                                                                                                                                   Score 211; DB 16;
Pred. No. 1.1e-16;
6; Mismatches 21;
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Pred. No. 1.1e-16;
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                                                                                                                                                                                          Length 604;
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RESULT 35
US-10-934-717-4
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US-10-825-282-40
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US-10-825-282-40
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PRIOR FILING DATE: 1999-12-08
PRIOR APPLICATION NUMBER: 60/134,416
PRIOR FILING DATE: 1999-05-17
PRIOR FILING DATE: 1999-05-17
PRIOR APPLICATION NUMBER: 09/087,195
PRIOR FILING DATE: 1998-05-29
PRIOR FILING DATE: 1998-01-26
PRIOR FILING DATE: 1995-01-26
PRIOR APPLICATION NUMBER: 08/250,478
PRIOR APPLICATION NUMBER: 08/250,478
PRIOR FILING DATE: 1994-05-27
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Tocal Similarity
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APPLICANT: 3921-1-1-1
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Publication No. US20040224389A1
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CURRENT FILING DATE: 2004-04-14
CURRENT FILING DATE: 2004-04-14
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                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PSTEARING Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/934,717
FILING DATE: 03-Sep-2004
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
CLASSIFICATION DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goeddel, David V
TITLE OF INVENTION: INHIBITORS OF APOPTOSIS
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94111
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Rothe, Mike
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              315 WEPRCEYL 322
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                                APPLICATION NUMBER: US/10/232,286 FILING DATE: 30-Aug-2002 APPLICATION NUMBER: US/08/569,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
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FILING DATE: <Unknown>
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; Pred. No. 1.1e-16;
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; Sequence 28, Application US/09201936 ; Publication No. US20020187946A1 ; GENERAL INFORMATION:
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; MOLECULE TYPE: protein;
; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-934-717-4
                                                                                US-09-201-936-28
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                                                                                                   RESULT 37
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LENGTH: 1140
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publication No. US20030176682A1
GENERAL INFORMATION:
APPLICANT: Vlaams Interuniversitair Instituut voor Biotechnol
                                                                                                                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/138,834
PRIOR FILING DATE: 1999-06-09
NUMBER OF SEQ ID NOS: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/353,461
CURRENT FILING DATE: 2003-01-26
PRIOR APPLICATION NUMBER: US/09/579,692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Molecular characterisation of chromosome translocation TITLE OF INVENTION: t(11;18) (q21;q21) and its correlation to TITLE OF INVENTION: carcinogenesis FILE REFERENCE: PMA/MALT/V043
APPLICANT: Korneluk, Robert G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 4: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                             Local
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REGISTRATION NUMBER: 24,774
REFERENCE/DOCKET NUMBER: A-62464/DJB
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415)781-1989
TELEFAX: (415)398-3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                              315 WFPRCBYL 322
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39; Conservative
                                                                                                                                                                                                    59 WYPGCKYL 66
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TYPE: amino acid
STRANDEDNESS: single
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د.
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Pred. No. 2.1e-16;
6; Mismatches 21;
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Pred. No. 1.1e-16;
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TITLE OF INVENTION: PROBES, AND DETECTION METHODS
FILE REFERENCE: 07891/003003
CURRENT APPLICATION NUMBER: US/09/201,936
CURRENT FILING DATE: 1998-12-01
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: 09/011,356
EARLIER APPLICATION NUMBER: PCT/IB96/01022
EARLIER APPLICATION NUMBER: 07/1896/01022
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1996-08-05
EARLIER FILING DATE: 1995-12-22
EARLIER FILING DATE: 1995-08-04
EARLIER FILING DATE: 1995-08-04
EARLIER FILING DATE: 1995-08-04
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US-09-201-936-28
                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/260,478
PRIOR FILING DATE: 2001-01-08
NUMBER OF SEQ ID NOS: 25
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 18
                                                                                                                                                                                                  Best
                                                                                                                                                                                                                     Query Match
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Publication No. US20030049796A1
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Best Local
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SOFTWARE: FRSTSEQ for Windows Version 3.0
SEQ ID NO 28
LENGTH: 68
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: HUANG, QIHONG
APPLICANT: REED, JOHN C.
APPLICANT: DEVERAUX, QUINN L.
APPLICANT: MAEDA, SUSUMU
APPLICANT: MAEDA, SUSUMU
TITLE OF INVENTION: INHIBITOR OF APOPTOSIS PROTEINS AND NUCLEIC ACIDS TITLE OF INVENTION: METHODS FOR MAKING AND USING THEM
FILE REFERENCE: 087102/027 2537
CURRENT APPLICATION NUMBER: US/10/041,859
CURRENT FILING DATE: 2002-01-07
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APPLICANT: Baird, Stephen
APPLICANT: Liston, Peter
                                                                                                                                                                                                                                                                                                              TYPE: PRT
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                                                                                                                                                                                                Local
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63 DRCEYV 68
                                           61 PGCKYL 66
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                                                                                                                                                                                                Similarity
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                                                                                    ARLRTFAEWPRGLKQRPEELAEAGFFYTGQGDKTRCFCCDGGLKDWEPDDAPWQQHARWY
                                                                                                                ARIFTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLITDWKPSEDPWEQHAKWY 60
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                                                                                                                                                                                              52.7%; Score 205; DB 14; 50.0%; Pred. No. 5.6e-17;
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Pred. No. 5.6e-17;
13; Mismatches 18; Indels
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                                                                                                                                                                                                                  Length 68;
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US-10-041-859-12
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US-10-600-272-28
                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: HUANG, QIHONG
APPLICANT: HEED, JOHN C.
APPLICANT: DEVERAUX, QUINN L.
APPLICANT: DEVERAUX, QUINN L.
APPLICANT: MAEDA, SUSUMU
TITLE OF INVENTION: METHODS FOR MAKING AND USING THEM
FILE REFERENCE: 087102/027 2537
CURRENT APPLICATION NUMBER: US/10/041,859
CURRENT FILING DATE: 2002-01-07
PRIOR APPLICATION NUMBER: 60/260,478
PRIOR FILING DATE: 2001-01-08
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CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 09/011,356
PRIOR FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: PCT/IB96/01022
PRIOR FILING DATE: 1996-08-05
PRIOR FILING DATE: 1996-08-05
PRIOR APPLICATION NUMBER: US 08/576,956
PRIOR FILING DATE: 1995-12-22
                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 25
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 12
LENGTH: 172
                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 12, Application US/10041859 Publication No. US20030049796A1
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SEQ ID NO 28
LENGTH: 68
TYPE: PRT
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                                                                Query Match
Best Local :
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PRIOR FILING DATE: 1995-08-04
NUMBER OF SEQ ID NOS: 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                TYPE: PRT
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3 ARIFTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY 60
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tive 13; Mismatches 18
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Q9esf0 rattus norv
Q9eq04 rattus norv
  99r0i6
99eq04
99eq05
96p09
96p1a0
96sp1a0
95m71
95m72
95m77
98uwh2
07sw1
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7 orgyia pseu
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homo sapien
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9 homo sapien
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RN SE RN SE RN SE RN SE RN	RP SE	RP SEE	RESULT BIR4_HU BIR4_HU ID P9 AC P9 A	4444 542210	
Grafham D.; Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases. [4] SEQUENCE FROM N.A. TISSUB-Uterus; MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abrammon R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,	SEQUENCE FROM N.A. TISSUE=Fetal heart; MEDLINE=96256286; pubMed=8654366; MEDLINE=96256286; pubMed=8654366; Duckett C.S., Nava V.E., Gedrich R.W., Giffillan M.C., Shiels H., Hardwick J. "A conserved family of cellular genes gene and encoding apoptosis inhibitors gene and encoding apoptosis inhibitors EMBO J. 15:2685-2694(1996). [3] SEQUENCE FROM N.A. Grafham D.; Grafham D.;	M N.A. 1 brain; 19214; PubMed=8552191; DG 19214; PubMed=8552191; DG ROY N., Tamai K., Lefebv, McLean M., Ikeda J., M. n of apoptosis in mammal: n of apoptosis in mammal: 1949-353(1996). 2049-353(1996). 2052-2054(1996). 2052-2054(1996).	IMAN IR4 HUMAN STANDARD; PRT; 98170; Q9NQ14; 1-OCT-1996 (Rel. 34, Created) 1-OCT-1996 (Rel. 34, Last sequency 1-OCT-1996 (Rel. 34, Last sequency 1-OCT-2004 (Rel. 45, Last annotation of the containing of	197 50.6 612 1 197 50.6 618 1 196 50.4 283 2 196 50.4 604 2 195 50.1 263 2 195 50.1 403 2	202 202 199 199 197 55
	lem R.J., van Dongen J.L., Thompson C.B.; lated to the baculovirus		497 AA. update) ion update) protein 4 (Inhibitor of apoptosis apoptosis protein) (X-linked IAP) IAP; IAP; rrhini; Hominidae; Homo.	TS	Q7t0k2 Q6zm93 Q8im93 Q968t8 Q9emen Q9emen Q9gzc6 Q8izz0 Q6p6m1

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRUCTURE BY NMR OF 241-356 IN COMPLEX WITH SMAC.
MEDLINE=21020961; PubMed=11140637; DOI=10.1038/35050006;
Liu Z., Sun C., Olejniczak E.T., Meadows R.P., Betz S.F., Oos-
Herrmann J., Wu J.C., Fesik S.W.;
"Structural basis for binding of Smac/DIABLO to the XIAP BIR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., "Generation and initial analysis of more than 15,000 full-length and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nature 408:1004-1008(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - runcTION: Apoptotic suppressor. Inhibitor of caspase-3, -7 and --
- SUBUNIT: Interacts with SMAC and with PRSS25, these interactions inhibit apoptotic suppressor activity.
- SUBCELLULAR LOCATION: Cytoplasmic.
- TISSUE SPECIFICITY: Ubiquitous, except peripheral blood leukocytes.
- DOMAIN: The second BIP Acmain
             GO:0006916;
                                                                                                                                                                                                                                                                                                                                                             s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way ified and this statement is not removed. Usage by and for commercial ities requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and -7, while the third BIR is involved in car
The interactions with SMAC and PRSS25 are med
and third BIR domains.
SIMILARITY: Belongs to the IAP family.
SIMILARITY: Contains 3 BIR repeats.
SIMILARITY: Contains 1 RING-type zinc finger.
                                                                          1F9X; NMR; A=237-356.
1G3F; NMR; A=240-356.
1G3F; X-ray; C/D=238-358.
1I3O; X-ray; E/F=120-240.
1I4O; X-ray; C/D=120-260.
1I51; X-ray; E/F=124-240.
1KMC; X-ray; C/D=124-242.
1NMG; X-ray; C/D=124-242.
1NMG; X-ray; A=253-350.
1NMG; X-ray; A=253-350.
1NMG; X-ray; A=253-350.
1NMG; X-ray; A=253-350.
C:cytosol; TAS.
F:caspase inhibitor activity;
P:anti-apoptosis; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 icient to inhibit caspase-3 ed in caspase-9 inhibition. are mediated by the second
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InterPro; IPR002097; Profilin.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PR051TE; PS01282; BIR REPEAT 1; 3
PROSITE; PS50143; BIR REPEAT 2; 3
PROSITE; PS5018; ZF RING 1; FALS;
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330
485
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 56684 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repeat; Thiol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RING-type.
D-A: Reduced interaction with PRSS25;
when associated with S-214.
N-D: Reduced interaction with PRSS25;
when associated with S-314.
W-R: Reduced interaction with PRSS25;
when associated with S-314.
D-S: Reduced interaction with PRSS25.
Reduced interaction with PRSS25.
Reduced interaction with PRSS25;
when associated with A-148.
E-S: Decreased interaction with SMAC an associated with A-148.
S-S: Decreases interaction with PRSS25; when associated with D-259 or A-310.
C (in Ref. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FALSE_NEG
  9D394C16D45EB635
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protease
  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
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Query Match Best Local S Matches 66

100.0%; llarity 100.0%; Conservative 0;

0

Score 389; DB 1; Pred. No. 7.5e-37; Mismatches 0;

Length 497;

0

Gaps

0

66; Similarity

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RESULT 2
BIR4
BIR4
AC 1980
DT 16-0
DT 
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Query Match
Best Local S
Matches 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
05-UUL-2004 (Rel. 44, Last amoutation update)
Daculoviral IAP repeat-containing protein 4 (Inhibitor of apopt protein 3) (X-linked inhibitor of apoptosis protein) (X-linked inhibitor of apoptosis protein) (X-linked inhibitor of apoptosis protein)
(IAP homolog A) (RIAP3) (RIAP3).
Name=Birc4; Synonyms=Api3, Xiap;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf ring.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AB033366; BAA85304.1; -. HSSP; P98170; 1151.
                                                                                                                                     REPEAT
ZN_FING
                                                                                                                                                                                                                                                                     PROSITE; PS01282; BIR REPEAT 1; 3.
PROSITE; PS005143; BIR REPEAT 2; 3.
PROSITE; PS00519, ZF RING 1; FALSE NEG.
PROSITE; PS50089; ZF_RING 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9R0I6;
16-OCT-2001
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                                                                                                              SEQUENCE
                                                                                                                                                                                              REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Rattus norvegicus X-linked inhibitor of apoptosis (riap3) mRNA.";
Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Apoptotic suppressor. Inhibitor of caspase-3, -7 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT: Interacts with SMAC and with PRSS25; these interactions inhibit apoptotic suppressor activity (By similarity). SUBCELLULAR LOCATION: Cytoplasmic (By similarity). SUBCELLULAR LOCATION: Cytoplasmic (By similarity). DOWAIN: The second BIR domain is sufficient to inhibit caspase-3 and -7, while the third BIR is involved in caspase-9 inhibition. The interactions with SMAC and PRSS25 are mediated by the second and third BIR domains (By similarity). SIMILARITY: Belongs to the IAP family. SIMILARITY: Contains 3 BIR repeats. SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nitted (OCT-1999) to FUNCTION: Apoptotic (By similarity).
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     63;
                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                           Repeat;
26
163
264
449
496 AA;
     Conservative
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230
329
484
                                                                                                                                                                                                                                              Zinc-finger.
                         96.9%;
95.5%;
                                                                                                           56072 MW;
                                                                                                BIR 1.
BIR 2.
BIR 3.
RING-type.
W, E250E3C77461A469 CRC64;
  ν
••
                         Score 377; DB 1;
Pred. No. 1.9e-35;
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
     Mismatches
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                                                   DB 1; Length 496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Inhibitor of apoptosis
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; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a collaboration
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  Gaps
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RESULT 4
Q9EQ04
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GO; GO:0004842; F:ubiquitin-protein ligase activit;
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008216; P:anti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
InterPro; IPR001370; Prot inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00238; BIR; 3.
SPASITE; PS001282; BIR REPEAT_1; 3.
PROSITE; PS01282; BIR REPEAT_2; 3.
PROSITE; PS50089; ZR RING; 2; 1.
SEQUENCE 496 AA; 56117 MW; 9BEF142AAEC5B798 CR
                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                         Q9EQ04;
                                                                        01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Inhibitor of apoptosis protein 3.
Rattus norvegicus (Rat)
                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of Apoptosis protein 1, 2, and

BMC Genomics 3:5-5(2002).

EMBL; AF183429; AAG22969.1; -.

HSSP; P98170; 1151.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-UUN-2003 (TrEMBLrel. 24, Last annotation updat
Inhibitor of apoptosis protein 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ESF0;
STRAIN=Wistar; TISSUE=Ovary;
             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Holcik M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Holcik M., Lefebvre C.A., Hicks I "Cloning and characterization of of Apoptosis protein 1, 2, and 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
PubMed=11860601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rattus norvegicus (Rat)
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                                                                                                                                                                                                                        PGCKYL
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                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                        PRELIMINARY;
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                                                  Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                    96.9%;
95.5%;
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2; Mismatche
                                                   Sciurognathi; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rattus.
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                                                                                                                                                                                                                                                                                                                            Mismatches
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ne rat homo
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1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activity; IEA.
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                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                               CRC64;
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RESULT

QSEQUE

ID POS

AC QS

DT 011

HSSP; P98170; 1151.

R GO; GO:0000151; C:ubiquitin ligase complex; IEA.
R GO; GO:0000151; C:ubiquitin-protein ligase activity
R GO; GO:0004842; F:ubiquitin-protein ligase activity
R GO; GO:0008270; F:zinc ion binding; IEA.
NR GO; GO:00065916; P:anti-apoptosis; IEA.
NR GO; GO:0016567; P:protein ubiquitination; IEA.
NR GO; GO:001657; P:protein ubiquitination; IEA.
NR GO; GO:001657; P:protein ubiquitination; IEA.
NR GO; GO:001657; P:protein ubiquitination; IEA.
NR GO; GO:0016567; IEA.
NR GO; GO:0016567; P:protein ubiquitination; IEA.
NR GO; GO:0016567; P:protein ubiquitination; IEA.
NR GO; GO:0016567; P:protein ubiquitination; IEA.
NR GO; GO:0016567; IEA.
NR GO; GO:0016567; IEA.
NR GO; GO:0
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Best Local :
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GO; GO:0000151; C:ubiquitin ligase complex; I
GO; GO:0000482; F:ubiquitin-protein ligase ac
GO; GO:00048270; F:zinc ion binding; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
GO; GO:0016517; P:protein ubiquitination; IEA
InterPro; IPR001370; Prot inh 132_IAP.
InterPro; IPR001841; Znf_ring.
PF00653; BIR; 3.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-Wistar; TISSUE-Ovary;
MEDLINE-22642584; PubMed-12606402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence up
01-JUN-2003 (TrEMBLrel. 24, Last annotation
Inhibitor of apoptosis protein 3.
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Biol. Reprod. 68:2232-2240(2003).
EMBL; AF304333; AAG41192.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Regulated expression of inhibitor of corpus luteum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS01282; BIR REPEAT 1;
PROSITE; PS50143; BIR REPEAT 2;
PROSITE; PS50089; ZF RING 2; 1.
SEQUENCE 501 AA; 56578 NW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lareu R.R., Lacher M.D., Bradley
Dharmarajan A.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biol. Reprod. 68:2232-2240(2003)
EMBL; AF304334; AAG41193.1; -.
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Dharmarajan A.M.;
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Lareu R.R., Lachen
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Lacher M.D., Bradley C.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96.9%;
95.5%;
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Pred. No. 1
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                                        CRC64;
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Best Local S
Matches 62
                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/an or send an email to license@isb-sib.ch).
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01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 4 (Inhibitor of apoptosis protein 3) (X-linked inhibitor of apoptosis protein 3) (X-linked inhibitor of apoptosis protein) (X-linked IAP)
(IAP homolog A) (MIAP3) (MIAP-3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAINE-GS7BL/6 X CBA; TISSUB-Liver;
MEDLINE=96209843; PubMede-86443514; DOI=10.1073/pnas.93.10.4974;
Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.;
"Cloning and expression of apoptosis inhibitory protein homolo-
function to inhibit apoptosis and/or bind tumor necrosis facto
receptor-associated factors.";
Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Farahani R., Lefebyr
Submitted (JUN-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=Birc4; Synonyms=Aipa, Api3, Miha, Xiap;
Mus musculus (Mouse)
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                                                                                                                                                                                                                                                       EMBL; U36842;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: Interacts with SMAC and with PRSS25; these intinhibit apoptotic suppressor activity (By similarity). SUBCELLULAR LOCATION: Cycoplasmic (By similarity). DOMAIN: The second BIR domain is sufficient to inhibit and -7, while the third BIR is involved in caspase-9 in The interactions with SMAC and PRSS25 are mediated by tand third BIR domains (By similarity). SIMILARITY: Belongs to the IAP family. SIMILARITY: Contains 3 BIR repeats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ahani R., Lefebvre C., Korneluk R.G., Mackenzie A.E., mitted (JUN-1997) to the EMBL/GenBank/DDBJ databases. FUNCTION: Apoptotic suppressor. Inhibitor of caspase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (By similarity)
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AAB58376.1; -.
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7.3e-35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     a collaboration -
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HSSP; P9u1,,,
MGD; MGI:107572; BirC4.
GG; GO:0001719; P:inhibition of (
InterPro; IPR001370; BIR.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 3.
SMART; SM00238; BIR; 3.

о F

caspase activation;

U88990; P98170;

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Best Local 9
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ZN FING
CONFLICT
                                                                                                                            SEQUENCE FROM N.A.

MEDLINB=21286921; PubMed=11390657;

DOI=10.1128/MCB.21.13.4292-4301.2001;

Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Reffey S.B.,

Frattini A., Tian L., Frank S., Youle R.J., Nelson D.L.,

Rotarangelo L.D., Vezzoni P., Fearnhead H.O., Duckett C.S.;

Molacular cloning of ILP-2, a novel member of the inhibitor

apoptosis protein family.";

Mol. Cell. Biol. 21:4292-4301(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q96F09; Q96RW5;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 8 (
like protein 2) (IAP-like protein 2) (ILP-2)
inhibitor of apoptosis).
Name=BIRC8; Synonyms=ILP2;
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PROSITE;
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                            Genomics
                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=21481900; PubMed=11597143; DOI=10.1006/geno.2001.635 Lagace M., Xuan J.-Y., Young S.S., McRoberts C., Maier J., Rajcan-Separovic E., Korneluk R.G.; "Genomic organization of the X-linked inhibitor of apoptosis identification of a novel testis-specific transcript."; Genomics 77:181-188 (2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HUMAN
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REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIR8 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7
FUNCTION: Protects against apoptosis mediated SUBUNIT: Binds to caspase-9.
SUBCELLULAR LOCATION: Cytoplasmic (Probable).
TISSUE SPECIFICITY: Testis specific in normal SIMILARITY: Belongs to the IAP family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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PS50143;
PS00518;
PS50089;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YEARIVTFGTWTSSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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BIR_REPEAT 2; 3.
FEF_RING_1; FALSE_NEG.
FEF_RING_2; 1.
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95.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 -> A (in Ref. 2).

C -> N (in Ref. 2).

EC5FAE0799F2CDD8
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McRoberts C., Maier J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            368; DB 1;
No. 2.1e-34
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                           in normal tissues
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(Testis-specific
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Pfam; pF00563; Bir, 1.

SMART; SM00238; BIR; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR_REPEAT_1; 1.

PROSITE; PS0163; BIR_REPEAT_2; 1.

R PROSITE; PS00518; ZF_RING_1; FALSE_NEG.

PROSITE; PS50089; ZF_RING_2; 1.

**PODETOSIS; Zinc-finger.

**PROSITE; PS50089; ZF_RING_2; 1.

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Best Local
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InterPro; IPR001841; Znf_ri
Pfam; PF00653; BIR; 1.
SMART; SM00238; BIR; 1.
SMART; SM00184; RING; 1.
               MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D., Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUL-2004
05-JUL-2004
Baculoviral
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CONFLICT
SEQUENCE
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=BIRC8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q6PIA0;
05-JUL-2004
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the European Bioinformatics Institute. There are no restrictions
use by non-profit institutions as long as its content is in
modified and this statement is not removed. Usage by and for con
  Fahey J., H
Whiting M.,
                                                                                                                                                                                                                                                                                                           TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
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SIMILARITY: Contains 1 RING-type zinc finger.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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AAK81892.1; -.
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Primates;
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  A.C.,
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Pred. No. 2.8e
6; Mismatches
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8
  Shevchenko
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1 G.G.,
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WEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
WREDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
WKlausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
WKlausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
WA Altechul S.F., Zeeberg B., Buerow K.H., Schaefer C.F., Bhat N.K.,
WA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
WA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
WA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
WA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
WA Stapleton M., Soares M.B., Bonaldo M.F., Carninci P., Prange C.,
WA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
WA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
WA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
WA Willialon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
WA Willialon D.K., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
WA Hitting M., Wadan A., Young A.C., Shevchenko Y., Bouffard G.G.,
WA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
WA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
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Best Local (
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Pfam; PF00653; BLR; 1.

SMART; SM00238; BIR; 1.

SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 1.

PROSITE; PS50143; BIR REPEAT 2; 1.

PROSITE; PS50143; BIR TREPEAT 2; 1.

SEQUENCE 236 AA; 77077 MW; DF:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06IPY1;
05-JUL-2004 (TrEMBLrel.:
05-JUL-2004 (TrEMBLrel.:
05-JUL-2004 (TrEMBLrel.:
BIRC8 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc.
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Homo sapiens (Human)
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GO; GO:0016567; P:protein ubiquitination; IEA.
InterPro; IPR001370; Prot inh I32 IAP.
InterPro; IPR001841; Znf_ring.
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and mouse cI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jones
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GO:0000151; C:ubiquitin ligase complex; IEA.
GO:0004842; F:ubiquitin-protein ligase activity;
GO:0008270; F:zinc ion binding; IEA.
GO:0006870; F:znc ion binding; IEA.
GO:0006870; F:znc ion binding; IEA.
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c. Natl. Acad. Sci. U.S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 347; DB 2;
Pred. No. 2.8e-32;
6; Mismatches 4
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J., Myers R.M.,
D.E., Schnerch 1
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A., Schein J.E.,
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28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 8 (Inl)
Baculoviral IAP repeat-containing protein 8 (Inl)
Baculoviral IAP repeat-containing protein 2 (ILP-2).
Name=BIRCS; Synonyms=ILP2;
Name=BIRCS; Synonyms=ILP2;
Pan troglodytes (Chimpanzee).
Eukaryota; Metazoa; Chordata; Craniata; Vertebr
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GO; GO:0000151; C:ubiquitin ligase complex;
GO; GO:0004842; F:ubiquitin-protein ligase a
GO; GO:0004842; F:ubiquitin-protein ligase a
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006916; P:znti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitination; IE
InterPro; IPR001370; Prot inh 132_IAP.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00238; BIR; 2.
                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE=21286921; PubMed=11390657;

DOI=10.1128/MCB.21.13.4292-4301.2001;

DOI=10.1128/MCB.21.13.4292-4301.2001;

Richter B.W.M., Mir S.S., Eiben L.J., Lewis J., Reffey S.

Frattini A., Tian L., Frank S., Youle R.J., Nelson D.L.,

Notarangelo L.D., Vezzoni P., Fearnhead H.O., Duckett C.S.

"Molecular cloning of ILP-2, a novel member of the inhibition apoptosis protein family."

Mol. Cell. Biol. 21:4292-4301(2001).
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Q95M72;
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PROSITE; PS50143; BIR REPEAT 2;
PROSITE; PS50089; ZF RING 2; 1.
SEQUENCE 338 AA; 38622 MW; I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
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                                                                   SUBUNIT: Binds to caspase-9 (By similarity). SUBCILLULAR LOCATION: Cytoplasmic (Probable). SIMILARITY: Belongs to the IAP family. SIMILARITY: Contains 1 BIR repeat. SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                           FUNCTION: Protects against
                                                                                                                                                                         similarity).
SUBUNIT: Bir
SWISS-PROT entry is copyright. It is producen the Swiss Institute of Bioinformatics
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Matches 55
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955M71;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 44, Last sequence update)
95-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 8 (Inhibitor of apoptos)
like protein 2) (IAP-like protein 2) (ILP-2).
Name=BIRC8; Synonyms=ILP2;
Gorilla gorilla Gorilla (Lowland gorilla).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
                                                                                                                                                                                                                                                                                                                                                  MEDLINE=21286921; PubMed=11390657;
DOI=10.1128/MCB.21.13.4292-4301.2001;
Richter B.W.M., Mir S.S., Elben L.J., Lewis J., Reffey S.B., Frattini A., Tian L., Frank S., Youle R.J., Nelson D.L., Notarangelo L.D., Vezzoni P., Fearnhead H.O., Duckett C.S.; "Molecular cloning of ILP-2, a novel member of the inhibitor apoptosis protein family.";
Mol. Cell Biol. 21:4292-4301(2001).
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SEQUENCE
                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                        SMART; SM00238; BIR; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; 1.
PROSITE; PS0143; BIR REPEAT 2; 1.
PROSITE; PS00518; ZF RING 1; FALSE NEG PROSITE; PS50089; ZF RING 2; 1.
APOPLOSIS; Zinc-finger.
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InterPro; IPR001841; Z
Pfam; PF00653; BIR; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                             -!- FUNCTION: Protects against apoptosis mediated
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Pred. No. 1.4e-31;
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RING-type.
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  . Usage by and for commercial http://www.isb-sib.ch/announce/
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Q96RW Q96RW AC Q96RW AC Q96RW AC Q96RW DT 01-DE DT 01-DE DT 01-DE DT 01-DE DT 01-DE DT 01-DE DT 00-DE 
RESULT
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Best Local S
Matches 53
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Best Local (
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Q8UVF8;
Q8UVF8;
01-MAR-2002
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q96RW6;
01-DEC-2001
01-DEC-2001
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Apoptosis;
REPEAT
ZN_FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                        Interpro; IPR001370; Prot_inh_I32_IAP.
Pfam; PF00653; BIR; 1.
SMART; SM00238; BIR; 1.
PROSITE: DECENT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=ILP3;
Name=ILP3;
Homo sapiens (Human).
'rrvota; Metazoa; Chordata;
'rrvota; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00653; BIR; 1.
SMART; SM00238; BIR; 1.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; FALSE NEG.
PROSITE; PS00518; EF RING 1; FALSE NEG.
PROSITE; PS0089; ZF RING 2; 1.
PROSITE; PS0089; ZF RING 2; 1.
                                                                                                                                                                                                                                                                                                                              SMART; SM00238; BIR; 1.
PROSITE; PS50143; BIR REPEAT 2;
SEQUENCE 106 AA; 12360 MW; 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mir S.S., Duckett C.S.;
Submitted (JUL-1999) to the
EMBL; AF164681; AAK81891.1;
HSSP; P98170; 1G3F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IAP-like protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AY03005
HSSP; P98170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                  GO:0005622; C:intracellular; IEA.
GO:0006916; P:anti-apoptosis; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AY030053;
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                                                                                                                                                                 N
                                                                                                                                                                                                                                                 53;
                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                             WIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWYPGCKYL
                                                                                                                                                                 WIYSVNKEQLSRAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHDKWHPGCKYL
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                                                                                                                                                                                                                                             82.8%;
larity 94.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel.
                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86.9%;
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27120 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to the EMBL/GenBank/DDBJ databases
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19,
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                               Score 322; DB 2;
Pred. No. 1.1e-29;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIR.
RING-type.
; C3A70E39EE442E4C CRC64;
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Pred. No. 3.2e-31;
                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                 1.
6BBAD3AEA880A891 CRC64;
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(TrEMBLrel.

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Created)

Last sequence update)

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QBWMY
AC QBMY
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GO; GO:0000151; C:ubiquitin ligase complex;
GO; GO:0004842; F:ubiquitin-protein ligase a
GO; GO:0004842; F:ubiquitin-protein ligase a
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0016567; P:protein ubiquitination; IEA.
GO; GO:0016567; P:prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8WMY4;
Q8WMY4;
01-MAR-2002
01-MAR-2002
                                              NON_TER
                                                                                                                                                                            GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
Pfam; PF00653; BIR; 2.
SMART; SM00238; BIR; 1.
                                                                                                                                                                                                                                                                                                                                                         Gutierrez-Adan A., Madrid-Bury N., Arroyo-Garcia R., Jimenez A., Pintado B., De la Fuente J.; Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databas EMBL; AF458770; AAL66179.1; -. HSSP; P98170; 1130.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bos taurus (Bovine).
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
X-linked inhibitor of apoptosis protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bridgham J.T., Johnson A.L.;
Bridgham J.T., Johnson A.L.;
Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bovinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=XIAP;
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Archosauria; Aves; N
                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=IAP3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Foca1
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GO:0000151; C:ubiquitin ligase complex;
GO:0004842; F:ubiquitin-protein ligase a
GO:0008270; F:zinc ion binding; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        324
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                                                                                                                             PSS0143; BIR_REPEAT_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YERRIQTFLAWIYPVNKEHLABAGFYSTGNGDHVVCFHCGGGLQEWKENEDPWDQHAKWF
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    109
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12361 MW;
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Pred. No. 6e-25;
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    C4027DC88213DE6D CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=74660;
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Pred. No. 7
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Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Hopkins R.F., Jordan H., Moore T., Max. S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max., Rubin G.M., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max., Rubin G.M., Hong L.,

A Hopkins R.F., Jordan H., Moore T., Max., Rubin G.M., Hong L.,

A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Wodin T.B., Toshiyuki S., Carninci P., Prange C.,

A Besak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratre P.H.,

A Besak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratre P.H.,

A Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

VIllalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Butterfield Y.S.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Krzywinski M. I., Skalska U., Smailus D.E., Schmerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 35
                                                                                                                                                                                         Q8UWH2;
Q8UWH2;
01-MAR-2002
01-MAR-2002
                                                                  Brachydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata,
Actinopterygii; Neopterygii;
Cyprinidae; Danio.
                                                                                                                                        Xiap.
Name=birc4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (JUL-2004) to the EMBL/GenBank/DDBJ EMBL, BC078344; AAH78344.1; -. GO; GO:0005522; C:intracellular; IEA. GO; GO:0006916; P:anti-apoptosis; IEA. InterPro; IPR001370; Prot_inh_I32_IAP. Pfam; PF00653; BIR; 3.

SMART; SM00238; BIR; 3.
SEQUENCE FROM N.A. MEDLINE=20373792;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hypothetical protein SEQUENCE 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
                                                                                                                                                                          01-MAR-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Whole
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Generation and initial analysis of more than 15,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.
                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                  61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                PGCKYL
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                                                                                                                                                                                                                                                                                                                                  PGCSFL
                                                                                                    rerio (Zebrafish)
Metazoa; Chordata;
                                                                                                                                                                         (TrEMBLrel. 20,
(TrEMBLrel. 20,
(TrEMBLrel. 26,
                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                  66
   PubMed=10917738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36412 MW; F9562546FA200CDF
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                                                                                                                                                                       Created)
Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 216; DB 2;
Pred. No. 7.5e-17;
.3; Mismatches 18
                                                                                    ; Craniata;
Teleostei;
                                                                                                                                                                                                                                           PRT;
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                                                                                                                    (Danio
                                                                                                      rerio).
ta; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                           405
                                                                                      Ostariophysi;
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RX MEDLINE=2238857; Pubmedeil2477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altechal S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q7SXU1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Brachydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata;
Actinopterygii; Neopterygii; 7
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00653; BIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO; GO:0000151; C:ubiquitin ligase complex; IEA. GO; GO:0004042; F:ubiquitin-protein ligase activ GO; GO:0008270; F:zinc ion binding; IEA. GO; GO:0006916; P:anti-apoptosis; IEA. GO; GO:0016567; P:protein ubiquitination; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inohara N., Nunez G.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=AB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Birc4 protein (Fragment)
Name=birc4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-2003 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-2003
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SEQUENCE 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS50143; BIR REPEAT PROSITE; PS50089; ZF RING 2; Metal-binding; Zinc; Zinc-fir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZFIN;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 YEARIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Whole body;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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Pred. No. 9.5e
13; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Craniata; Vertebrata; Ev
Teleostei; Ostariophysi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Danio rerio)
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Best Local S
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Pfam; PF00053; BLR; 3.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00184; RING; 1.
SMOSITE; PS500143; BIR REPEAT 2; 3.
PROSITE; PS50089; ZFRING 2; 1.
Metal-binding; Zinc; Zinc-finger.
NON_TER 1
                                                                                                                                                                                                                                                          Submitted
EMBL; AY52
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Ribeiro
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Q6E7G7;
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                                                           GO; GO:0016567; P:protein ubiquitination; InterPro; IPR001370; Prot inh I32 IAP. InterPro; IPR001441; Znf_ring. Pfam; PF00653; BIR; 2. SMART; SM00238; BIR; 2.
                                                                                                                                                    88888
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (JUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jones S.J., "Generation and mouse cD
                                                                                                                                                                                                                                                                                                                                                                                                                             Anticarsia gemmatalis nuclear polyhedrosis virus (AgMNPV)
Viruses, dsDNA viruses, no RNA stage; Baculoviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-OCT-2004
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=31507
                                                                                                                                                                                                                                                                                                                                                                                                            Nucleopolyhedrovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001370; Prot inh_I32_IAP
InterPro; IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (JUL-2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                               BL; AY525121; AAS92269.1; -. GO:0000151; C:ubiquitin ligase complex; GO:0004842; F:ubiquitin-protein ligase & GO:0004870; F:zinc ion binding; IEA. GO:0006916; F:antl-apoptosis; IEA. GO:0016567; P:protein ubiquitination; II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N; ZDB-GENE-030825-7; birc4.
GO:0000151; C:ubiquitin ligase complex; IEA.
GO:0004842; F:ubiquitin-protein ligase activ
GO:0008470; F:zinc ion binding; IEA.
GO:0008270; F:zinc ion binding; IEA.
GO:0006916; P:anti-apoptosis; IEA.
GO:0016567; P:protein ubiquitination; IEA.
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                                                                                                                                                                                                                                                                                                    B.X.
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                                                                                                                                                                                                                                                                             (JAN-2004) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             415 AA; 46788 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Whole body;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Marra M.A.;
and initial analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TrEMBLrel. 28, Created)
(TrEMBLrel. 28, Last seq
(TrEMBLrel. 28, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation updat
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NING-type zinc finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 216; DB 2;
Pred. No. 9.7e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D9B82E448ADDCA92 CRC64;
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                                                                                                                                                                                                                activity;
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                                                                                                                                                                                                                                                                                                                     A.G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUE-Fetal liver;
MEDLINE=96209843, PubMed=8643514; DOI=10.1073/pn.
Uren A.G., Pakusch M., Hawkins C.J., Puls K.L.,
"Cloning and expression of apoptosis inhibitory |
function to inhibit apoptosis and/or bind tumor |
receptor-associated factors ";
Proc. Natl. Acad. Sci. U.S.A. 93:4974-4978 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q13489; Q16628; Q9HC27; Q9UP46;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last amnotation update)
05-JUL-2004 (Rel. 44, Last amnotation update)
Baculoviral IAP repeat-containing protein 3 (Inhibitor of a protein 1) (HIAP1) (HIAP-1) (C-IAP2) (TRAF signaling protein 1) (IAP homolog C) (Apoptosis inhibitor 2) (API2).
Name=BIRC3; Synonyme=API2, IAP1, MIHC;
  Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Magner L., Shenmen C.M., Schuler G. Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K. Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=96128127; PubMed=8548810; DOI=10.1016/0092-8674(95)90149-3; MEDLINE=96128127; PubMed=8548810; DOI=10.1016/0092-8674(95)90149-3; Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., Goeddel D.V.; "The TNFR2-TRAF signaling complex contains two novel proteins relation to baculoviral inhibitor of apoptosis proteins.";
                                                                                                                                                                                                                                         factor-alpha in vitro including inhibitor of
                                                                                                                                                                                                                                                                                                            Horrevoets A.J., Fontijn R.D. ten Cate J.W., Pannekoek H.;
                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99252096;
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Suppression of apoptosis family of IAP genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liston P., Rc
Farahani R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=96149249; PubMed=8552191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cell 83:1243-1252(1995).
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                                                                                                MEDLINE=22388257;
                                                                                                                                                 SEQUENCE FROM
                                                                                                                                                                                                                                       including
                                                                                                                                                                                                                                                                                      "Vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Liver;
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                                                                                                                                                                                             93:3418-3431(1999)
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                                                                                             PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                     PubMed=10233894;
Fontijn R.D., van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tamai
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Primates;
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ro are expressed in athe
of apoptosis protein-1,
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Ikeda J., Mackenzie A.,
is in mammalian cells by
                                                                                                                                                                                                                                                                                                                             R.D.,
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOI=10.1073/pnas.93.10.4974;
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No. 2
                                                                                                                                                                                                                                                                                                                                     Zonneveld
                                                                                                                                                                                                                                                                responsive to tumor necrosis in atherosclerotic lesions,
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                                                                                                                                                                                                                                                                                                                                  А.J.,
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NAIP and a related
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Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Ra Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
VA Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
VA Hahey J., Halton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
VA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
VA Hilalon D.K., Touchman J.W., Green E.D., Dickson M.C.,
VA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
VA Blakesley R.W., Touchman J.W., Schmutz J., Myers R.M.,
VA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
VGeneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                 EMBL; 149432; AAC41943.1; -.
EMBL; U45878; AAC50371.1; -.
EMBL; U37546; AAC55657.1; -.
EMBL; AF070674; AAC83232.1; -.
EMBL; BC37740; AAC83232.1; -.
EMBL; BC37745; AAC9369.1; -.
EMBL; AF07945; AAC99369.1; -.
EMBL; S68449; S68449.
                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as a very subset by and for commercial modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed. Usage by and for commercial modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOI=10.1002/1098-2264(2000)9999:9999<::AID-GCC1036>3.0.CO;2-I; Baens M., Steyls A., Dierlamm J., De Wolf-Peeters C., Marynen P.; "Structure of the MLT gene and molecular characterization of the genomic breakpoint junctions in the t(11;18)(q21;q21) of marginal zone B-cell lymphomas of MALT type."; Genes Chromosomes Cancer 29:281-291(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 362-441 FROM N.A. MEDLINE=20519161; PubMed=11066071;
                                                 GO:0005515; F:protein binding; NAS. GO:0006916; P:anti-apoptosis; TAS. GO:0007166; P:cell surface receptor erbro; IPR001370; BIR. erbro; IPR001315; CARD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Belongs to the IAP family.

SIMILARITY: Contains 3 BIR repeats.

SIMILARITY: Contains 1 CARD domain.

SIMILARITY: Contains 1 RING-type zinc finger.

DATABASE: NAME-Atlas Genet. Cytogenet. Oncol. Haematol.;

WWW-"http://www.infobiogen.fr/services/chromcancer/Genes/BIRC3ID239.html".
                                                                                                                                                                                                                                                                                                                                                                                                             s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
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                                                                                                                                                          U13490; 1QBH.
HGNC:591; BIRC3.
         IPR011029; DEATH like.
IPR001841; Znf_ring.
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SMART; SM00114; CARD; 1.

SMART; SM00114; RING; 1.

SMART; SM00184; RING; 1.

SMOSITE; PS01282; BIR REPEAT 1; 3.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50209; ZP_RING 1; PALSE_NEG.

PROSITE; PS50089; ZP_RING 2; 1.
                                                                                                                                                                                                                                        O62640;
15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-UUL-2004 (Rel. 44, Last annotation update)
Portarive inhibitor of apoptosis.
                                                                   CONFLICT
CONFLICT
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Eukaryota; Metazoa;
Mammalia; Eutheria;
         the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
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REPEAT
DOMAIN
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SITE
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                                                                                                                                                                             SEQUENCE FROM N.A.
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REPEAT
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PF00097; zf-C3HC4; 1.
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and this statement is not removed. Usage by and for commercial requires a license agreement (See http://www.isb-sib.ch/announce/
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57.4%;
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Breakpoint 1
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BIR :
CARD.
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6; Mismatches
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Pred. No. 5
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N -> H (in Ref. 2).
D -> E (in Ref. 2).
H -> P (in Ref. 2).
A -> P (in Ref. 2).
A -> P (in Ref. 2).
F -> L (in Ref. 2).
Q -> P (in Ref. 2).
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"Cloning and characterization of the rat homologues of to Appoptosis protein 1, 2, and 3 genes.";

Lefebyre Contains 1 RING-type zinc finger.

-!- SIMILARITY: Contains 1 RING-type zinc finger.

REMBL; AP183430; AAG22970.1; -.

RESP; Q13490; 1QBH.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:000151; F:protein binding; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity; IEA.

GO; GO:0006970; F:zinc ion binding; IEA.

GO; GO:001656; P:anti-apoptosis; IEA.

GO; GO:001657; P:protein ubiquitination; IEA.

InterPro; IPR001370; Prot_Inh I32_IAP.

InterPro; IPR001370; Prot_Inh I32_IAP.
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InterPro; IPRO11029; DEATH like.
InterPro; IPRO01841; Znf_Ting.
InterPro; IPRO01841; Znf_Ting.
IPRO0653; BIR; 2.
IPRO0659; CARD; 1.
IPRO0619; CARD; 1.
IPRO0619; Zf-C3HC4; 2.
IPRO0
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01-MAR-2001
01-MAR-2001
01-MAR-2004
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ZN_FING
SEQUENCE
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Holcik M., Lefeb
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Inhibitor of apoptosis protein 1.

Rattus norvegicus (Rat)
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SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 2.

PROSITE; PS50143; BIR REPEAT 2; 2.

PROSITE; PS50209; CARD; 1.

PROSITE; PS00518; ZF RING 1; FALSE NEG.

PROSITE; PS50089; ZF RING 2; 1.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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PIR; JC5964; JC5964.
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BIR 2.
CARD.
RING-type.
RING-type.
RB2268FA9A6190A4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7;
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Pred. No. 5.5e-16;
7; Mismatches 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e K.,
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RESULT
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Best Local :
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R Pfam; PF00619; CARD; 1.

R Pfam; PF00097; zf-C3HC4; 1.

R SMART; SM00138; BIR; 3.

R SMART; SM00114; CARD; 1.

R SMART; SM00114; CARD; 1.

R PROSITE; PS50143; BIR_REPEAT_1; 3.

R PROSITE; PS50143; BIR_REPEAT_2; 3.

R PROSITE; PS50209; CARD; 1.

R PROSITE; PS50209; ZFRING_2; 1.

R PROSITE; PS50089; ZF_RING_2; 1.

M Metal-binding; Zinc; Zinc-Tinger.

O SEQUENCE 602 AA; 67326 MW; CC91385EEA62DE5A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LT 23
                                                                                                  that modulates caspase activation.";
J. Biol. Chem. 279:0-0(2004)
J. FUNCTION: Acts by blocking cellular apoptosis preventing viral stimulation of apoptosis.
-!- SUBUNIT: Interacts with human PDCi3.
-!- SIMILARITY: Contains 2 BIR repeats.
                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-94187094; PubMed=8139034;
Birnbaum M.J., Clem R.J., Miller L.K.;
"An apoptosis-inhibiting gene from a nuclear
encoding a polypeptide with Cys/His sequence
J. Virol. 68:2521-2528(1994).
                                                                                                                                                                                          INTERACTION WITH HUMAN PDCL3.

PubMed=15371430; DOI=10.1074/jbc.M409623200;

PubMed=15371430; DOI=10.1074/jbc.M41860n A.S.,

Wilkinson J.C., Richter B.W.M., Wilkinson A.S.,

Rumble J.M., Balliu B., Duckett C.S.;

Rumble J.M., Balliu B., Duckett C.S.;

*VIAR: a conserved inhibitor of apoptosis (IAP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAP3 NPVOP STANDARD; PRT; 268 AA P41437; Created)
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
25-JAN-2005 (Rel. 46, Last annotation updat Apoptosis inhibitor 3 (IAP-3).
Name=IAP3; Synonyms=IAP;
           use by non-profit institutions as long
                                                                                                                                                                                                                                                                                       "The sequence of the Orgyia pseudotsugata multinucleocapsid nuclear polyhedrosis virus genome."; Virology 229:381-399(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Orgyia pseudotsugata muiticapsid polyhedrosis virus (OpMNPV)
Viruses; dsDNA viruses, no RNA stage; Baculoviridae;
Nucleopolyhedrovirus.
                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                    Rohrmann G.F.;
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=97271300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                    Ahrens C.H.,
                                                                                     SIMILARITY: Contains 1 RING-type zinc finger.
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36; Conserv
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non-profit and this st
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                                                                                                                                                                                                                                                                                                                                                 DOI=10.1006/viro.1997.
.J., Evans J., Harwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
         ormatics and the EMBL outsue. There are no restrictions ong as its content is in
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?.1e-15;
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RESULT 24
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AC Q91A7
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InterPro; IPR001341; Znf_ring.
Pfam; PP00653; BIR; 2.
Pfam; PP00653; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; 2.
PROSITE; PS01282; BIR REPEAT 2; 2.
PROSITE; PS01843; BIR REPEAT 2; 2.
PROSITE; PS00184; BIR REPEAT 2; 2.
PROSITE; PS00819; ZF RING 2; FALSE NEG.
PROSITE; PS0089; ZF RING 2; 1.
Apoptosis; Repeat; Zinc-finger.
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01-OCT-2000
01-OCT-2000
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ZN FING
SEQUENCE
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Poult. Sc
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Inhibitor of apoptosis 1 (Fragment).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                       EMBL; AP221082; AAP35319.1; -.
HSSP; Q13490; IQBH.
GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
InterPro; IPR001370; Prot_inh_132_IAP.
Pfam; PP00653; BIR; 2.
SMART; SM00238; BIR; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-breed Leghorn; TISSUE=Spleen; MEDLINE=21158006; PubMed=11261557; Zhou H., Liu W., Lamont S.J.;
                                                                                                                  PROSITE; PS01282; BÍR_REPEAT_1;
PS50143; BIR_REPEAT_2;
NON_TER 1 1 1
NON_TER 195 195
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HSSP; Q24306; 1JD4.
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                                                                                               SEQUENCE
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REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                         "Genetic variation among chicken lines and mammalian species
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l Similarity
37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 ARIFTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKWY
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an email to
                                                                                            195
195 AA;
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    Conservative
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  Score 204; DB 2; I
Pred. No. 1.1e-15;
8; Mismatches 21;
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Pred. No. 1.2e-15;
3; Mismatches 18;
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BIR 2.
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, DF89175FDE85A708 CRC64;
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RESULT 26
BIR_CHICK
ID BIR C
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Matches 37
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Q9IA69;
01-OCT-2000 (TrEMBLrel. 1
01-OCT-2000 (TrEMBLrel. 1
01-JUN-2003 (TrEMBLrel. 2
NCBI_TaxID=9031;
                                                                                                                                                                                   BIR CHICK STANDARD; PRT; 611 AA. 090660; 057319; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 05-JUL-2004 (Rel. 44, Last amoutation update) Inhibitor of apoptosis protein (IAP) (Inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON TER
NON TER
SEQUENCE
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specific genes.";
Poult. Sci. 80:284-288(2001).
Poult. Sci. 80:384-288(2001).
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Gallus gallus (Chicken).
Eukaryota, Metazoa; Chordata; Craniata; Vert
Archosauria; Aves; Neognathae; Galliformes;
                                                                                                                                                   protein).
Name=ITA; Synonyms=IAP1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00238; BIR; 2.
PROSITE; PS01282; BIR REPEAT 1;
PROSITE; PS50143; BIR REPEAT 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF221083; AAF35320.1; -.
HSSP; Q13490; 1QBH.
GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
InterPro; IPR001370; Prot_inh_132_IAP.
Pfam; PF00653; BIR; 2.
                                                                           Archosauria; Aves;
                                                                                                Gallus gallus (Chicken)
Eukaryota; Metazoa; Cho
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MEDLINE=21158006; PubMed=1161557;
Zhou H., Liu W., Lamont S.J.;
"Genetic variation among chicken lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                        Neognathae;
                                                                                                  Chordata;
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15, Last sequence up
24, Last annotation
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Pred. No. 1.2e-15;
8; Mismatches 21
                                                                           Craniata; Vertebrata; Euteleostomi; Galliformes; Phasianidae; Phasianidae;
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mes; Phasianidae; Phasiani
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Pfam; PF00653; BIR; 3.

Pfam; PF00619; CARD; 1.

Pfam; PF00097; Zf-C3H04; 1.

PROSITE; PS01282; BIR REPEAT 1; 3.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS00518; ZF RING 1; PALSE NEG.

PROSITE; PS00518; ZF RING 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               to Ref. 2.

-ITISSUE SPECIFICITY: Cells of the T lymphocyte lineage. Found in both cortical and medullary cells of the thymus. Expressed at relatively high levels also in spleen, bursa, intestine and lung and at very low levels in testis, brain and skeletal muscle.

-INDUCTION: High levels are induced within 4-8 hours of T-cell activation in spleen and thymus.

-IDOMAIN: The ring finger is important for its antiapoptotic effect.

-ISIMILARITY: Contains 1 BIR repeats.
-ISIMILARITY: Contains 1 RING-type zinc finger.
   CONFLICT
CON
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or send a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U27466; AAB48118.1; -.
EMBL; AF008592; AAB88044.1; -
HSSP; Q13490; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
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You M., Ku P.-T., Hrdlickova R., Bose H.R. Jr.;
"ch-IAPl, a member of the inhibitor-of-apoptosis protein family, in mediator of the antiapoptotic activity of the v-Rel oncoprotein.";
Mol. Cell. Biol. 17:7328-7341(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REPEAT
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TISSUE=Spleen;
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STRUCTION: Apoptotic suppressor.

STRUCKILITIAR LOCATION: Predominantly nuclear. Cytoplasmic according
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s requires a license agreement (Some an email to license@isb-sib.ch).
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IPR011029; DEATH like.
IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPR001370; BIR
      970 tein; 3329 970 tein; 536 970 tein; 536 970 tein; 536 970 tein; 5359 970 tein;
                                                                                                                                                                                                                                    RING-type.
F -> L (in
R -> Q (in
Q -> H (in
S -> F (in
CLW -> FLS
V -> L (in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Repeat; Zinc-finger.
DD -> Y
VN -> F
VX -> Q
VK -> T
K -> T
E -> D
T -> K
S -> L
                                                                                                                                                                                                                                                                                                                                                                                                                                                BIR 2.
BIR 3.
CARD.
                                                                                                     F -> L (in Ref. 2).
2 -> Q (in Ref. 2).
3 -> H (in Ref. 2).
5 -> F (in Ref. 2).
1 -> L (in Ref. 2).
1 -> L (in Ref. 2).
2 -> Y (in Ref. 2).
3 -> Y (in Ref. 2).
4 -> FI (in Ref. 2).
5 -> FI (in Ref. 2).
6 -> FQ (in Ref. 2).
7 -> EQLLS (in Ref. 2).
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RESULT

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Q6QXJ6;
05-JUL-2004
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PROSITE; PS01282; BIR REPEAT 1; 1.

PROSITE; PS50143; BIR REPEAT 2; 2.

PROSITE; PS50089; ZF RING 2; 1.

SEQUENCE 269 AA; 31135 MW; C92
                                                                                                                                                                                                                                                                                                                                                                                             GO; GO:0016567; P:protein ubiquitination; InterPro; IPR001370; Prot inh 132 IAP. InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Shanghai GeneCore biotechnology Ltd; Xiulian A., Zhifang W., Bo W., Wei Z., Yuhu S., Mei H.;
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Xiulian A., Zhifang
Yuhu S., Mei H.;
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Shi Y.H., He M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
Shanghai GeneCore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Agrotis segetum Granulosis Virus complete genome.";
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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Agrotis segetum granulosis virus (AsGV) (Agrotis segetum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ruses; dsDNA viruses,
                                           115 ENRLESYKTWPVSIPLRPKELAAAGFYYTGHSDQVNCFYCGGGLRDWKTGDDPWQQHARW
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60 ABCCKAL
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                                                                                                                                           Similarity
                                                                           EARIFTFGTWIYSV--NKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GeneCore Biotechnology Ltd.;
Wang Z.F., Wang B., Zhang W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GeneCore biotechnology Ltd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WYPGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (APR-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                524
611 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                        52.2%; S llarity 49.3%; P Conservative 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              524 F
69009 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54.4%;
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27,
27,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8,
                                                                                                                        Score 203; DB 2;
Pred. No. 2.1e-15;
3; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 204;
Pred. No. 3
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                                                                                                                                                                                                            C929C533465EEC51 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53FC9136F34EBDDD CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ľ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jianhong F., Chunsheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jianhong F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .6e-15;
es 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₹
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     F., Fu J.H., Cui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       databases
                                                                                                                                                               Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 611;
                                                                                                                            Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chunsheng
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                                                                                                                          د.
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                                                                                                                          Gaps
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                                               174
                                                                                   59
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175

FDKCLFL 181

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RESULT 29
BIR3_MOUSE
ID BIR3_MOUSE
AC 008863;
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RX Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L. Shemmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L. Shemmen C.M., Schuler G.D.,
RA Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altechul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,
RA Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,
RA Hopkins R.F., Jordan K., Farmer A.A., Rubin G.M., Hong L.,
RA Hopkins R.F., Jordan K., Farmer G.J., Abramson R.D., Mullahy S.J.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Raha S.S., Loquellano N.A., Peters G.J., Malek J.A., Gunaratne P.H.,
Ra Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Ra Hillon D.K., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Raha S.S., Horley R.C., Shevchenko Y., Bouffard G.G.,
Raha S.S., Marra M.A., Schmutz J., Myers R.M., Butterfield Y.S.,
Raha S.J., Marra M.A.,
Nones S.J., Makka U., Smallus D.E., Schnerch A., Schein J.E.,
Nones S.J., Marra M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q921N0
Q921N0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. STRAIN=Czech II; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO; GO:0005622; C:intracellular; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Birc3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=Birc3; Synonyms=Birc2;
                                                                                                                                                                                                                                                                                                                                     253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGI:1197007; Birc3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PF00653; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BC011338; AAH11338.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q13490; 1QBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS01282; BIR_REPEAT_1;
PS50143; BIR_REPEAT_2;
374 AA; 41915 MW;
                                                                                                                                                                                                                                                                                                                                                                                                   YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                                                                        WFPRCEYL
                                                                                                                                                                                                                                                                      WYPGCKYL 66
                                                                                                                                                                                                                                                                                                                                        HAARIRTFSNWPSSALVHSQELASAGFYYTGHSDDVKCFCCDGGLRCWESGDDPWVEHAK 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (JUL-2001) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel. 19, (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TrEMBLrel. 19, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            II;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Mammary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Mammary tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52.2%;
52.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 203; DB 2; Length 374; Pred. No. 2.9e-15; Mismatches 21; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1D2B54C32D7E46F3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence update)
annotation update)
                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            374
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Query Match
Best Local
                                Matches
                                                                                                                                                                                                 SMART; SM00238; BIR; 3.

SMART; SM00114; CARD; 1.

SMART; SM00114; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR REPEAT 1; 3.

PROSITE; PS50143; BIR REPEAT 2; 3.

PROSITE; PS500209; CARD; 1.

PROSITE; PS500518; ZF RING 1; FALSE NEG.

PROSITE; PS50089; ZFRING 2; 1.
                                                                                         DOMAIN
ZN FING
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        with TNF receptor associated factors 1 and 2 (TRAF1 and TRAF2) to form an heteromeric complex, which is then recruited to the tumor necrosis factor receptor 2 (TNFR2) (By similarity).

SUBUNIT: Interacts with SMAC and with PRS25; these interactions inhibit apoptotic suppressor activity (By similarity).

SUBCELIULAR LOCATION: Cytoplasmic (Potential).

SUBCELIULARITY: Belongs to the IAP family.

SIMILARITY: Contains 3 BIR repeats.

SIMILARITY: Contains 1 RING-type zinc finger.
                                                                                                                                          REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commentities requires a license agreement (See http://www.isb-sib.ch/an
                                                                                                                                                                                                                                                                                                                           Pfam; PF00619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                              Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=Birc3; Synonyms=Birc2, Iap1; Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1997 (Rel. 35, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Baculoviral IAP repeat-containing protein 3 (Inhibitor of apoptosis protein 1) (MIAP1) (MIAP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98110590; PubMed=9441758; DOI=10.1006/geno.1997.5059;
Liston P., Lefebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
"Genomic characterization of the mouse inhibitor of apoptosis protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. TISSUE=Skeletal mu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR011029; InterPro; IPR001841;
                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; Q13490; 1QBH.
MGD; MGI:1197007; Birc2.
                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR001370; BIR.
InterPro; IPR001315; CARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U88908; AAC53531.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 genes."
                                             Similarity
YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46:495-503 (1997)
                                                                                            600 AA;
                                                                                                                         27
167
253
436
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Rel. 35, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  muscle;
                                                                                          67198
                                             52.2%;
                                                                                                                                                                                                                                                                                                                                                                                             DEATH_like.
                                                                                                                                                                                     .nc-finger.
                                                                                                                                                                                                                                                                                                                                                                          Znf_ring.
                                                                                          MW:
                                                                                                                         BIR 1.
BIR 2.
BIR 3.
CARD.
                                             Score 203; DB 1; Pred. No. 4.6e-15;
                                                                                                           RING-type
                                                                                          AD7F73E6849317D1 CRC64;
                              Mismatches
                                                            Length
                                Indels
                                                             600,
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                             Gaps
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253

HAARIRTFSNWPSSALVHSQELASAGFYYTGHSDDVKCFCCDGGLRCWESGDDPWVEHAK

WYPGCKYL

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Best Loc
Matches
                                                                                                                                                                                                                                                                                                                  InterPro; IPRO11029; DEATH like.
InterPro; IPRO11029; DEATH like.
InterPro; IPRO01370; Prot inh I32 IAP.
InterPro; IPRO01841; Znf Ting.
Pfam; PF00653; BIR; 3.
Pfam; PF00653; BIR; 3.
Pfam; PF00619; CARD; 1.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00204; BIR; 3.
SMART; SM00104; RING; 1.
SMART; SM00104; RING; 1.
SMART; SM00104; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; 2.
PROSITE; PS0143; BIR REPEAT 2; 3.
PROSITE; PS0143; BIR REPEAT 2; 3.
PROSITE; PS50209; CARD; 1.
Metal-binding; Zinc; Zinc-finger.
SEQUENCE 616 AA; 69546 MW; D1389D915
                                    Q8UWD2;
Q8UWD2;
01-MAR-2002
01-MAR-2002
01-MAR-2004
Iap1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q804E2;
Q804E2;
01-JUN-2003
01-JUN-2003
Name=birc3; Synonyms=iapl;
Brachydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Praveen K., Leary J.H. III, Evans D.L., Jaso-Friedmann I
Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Contains 1 RING-type zinc finger.
EMBL; AY184377; AA024632.1; --
HSSP; Q13499; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ictalurus punctatus (Channel catfish).
Bukaryota; Metazoa; Chordata; Craniata;
Actinopteryqii; Neopterygii; Teleostei;
Ictaluridae; Ictalurus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-UN-2003 (TrEMBLrel. 24, Created)
01-UN-2003 (TrEMBLrel. 24, Last sequence update)
01-WAR-2004 (TrEMBLrel. 25, Last annotation update)
Inhibitor of apoptosis protein-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=7998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=cIAP-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001315;
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                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                             Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO:0000151; C:ubiquitin ligase complex; IEA.
GO:0005515; F:protein binding; IEA.
GO:0004942; F:ubiquitin.protein ligase activity;
GO:0008270; F:zinc ion binding; IEA.
GO:0008270; F:anti-apoptosis; IEA.
GO:0016567; P:protein ubiquitination; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO:0042981;
                                                                                                                                                                   330
                                                                                                                                                                                           60 YPGCKYL 66
                                                                                                                                                                                                                                2 EARIFTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKW
                                                                                                                                                                                                                                                                     Similarity
35; Conserv
                                                                                                                                                                 FPRCEYL 336
                                                                                                                                                                                                                    EERLLTFVNWPARIPVRPDQLAKAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAKW
                                                (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                      Conservative
                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P:regulation of apoptosis; IEA.
                                                                                                                                                                                                                                                                              51.9%;
52.2%;
                                                  20,
                                                                                                                                                                                                                                                              Score 202; DB 2; Leix
pred. No. 6.2e-15;
pred. No. 6.2e-15;
                                               Created)
Last sequence update)
Last annotation update)
 (Danio rerio).
Craniata; Vert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                     D1389D915C6BB256 CRC64;
                                                                                                    628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
 Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vertebrata; Euteleostomi;
Ostariophysi; Siluriformes;
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                                                                                                                                                                                                                                                                                          Length 616;
                                                                                                                                                                                                                                                                     Indels
  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IEA.
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                                                                                                                                                                                                                                                                    <u>ب</u>
                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 35
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Pfam; PF000519; CARD; 1.

Pfam; PF00097; Zf-C3HC4; 1.

SMART; SM00134; BIR; 3.

SMART; SM00114; CARD; 1.

SMART; SM00184; RING; 1.

SMART; SM00184; RING; 1.

PROSITE; PS01182; BIR_REPEAT_1; UNKNOWN_2.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50099; ZF-RING_2; 1.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 628 AA; 70098 MW; 5B68CEB6A87C8;
                                                                                                                                                                                                                                                                                                                                                              Q7TOK2
Q7TOK2;
Q7TOK2;
Q7TOK2;
Q1-OCT-2003 (TrEMBLrel. 2:
01-OCT-2003 (TrEMBLrel. 2:
01-MAR-2004 (TrEMBLrel. 2:
Inhibitor of apoptosis pr
  EMBL;
HSSP;
ZFIN;
                        Ens K.M., Valdimarsson G.;
Submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.
--- SIMILARITY: Contains 1 RING-type zinc finger.
EMBL; AY247786; AAP04483.1; --
HSSP; P98170; 1130.
                                                                                                                                                                                                                                  Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu
Actinopterygii; Neopterygii; Teleostei; Ostariophysi;
Cypinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GG; GO:0000151; C:ubiquitin ligase complex; IEA.
GO; GO:0005515; F:protein binding; IEA.
GO; GO:00054842; F:ubiquitin-protein ligase activity; IEA.
GO; GO:00048270; F:zinc ion binding; IEA.
GO; GO:0006270; F:zinc ion binding; IEA.
GO:0006270; F:zinci-apoptosis; IEA.
GO; GO:0016567; F:protein ubiquitination; IEA.
GO; GO:0042281; P:regulation of apoptosis; IEA.
                                                                                                                                                                                                                                                                                                                                                Name=birc3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZFIN;
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Submitted (NOV-2001) to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
NCBI_TaxID=7955;
                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                            NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SIMILARITY: Contains 1 RIN
EMBL; AF442500; AAL33679.1; -.
HSSP; Q13490; 1QBH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cell Death
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340 FPRCEYL 346
P98170; 1I3O.
ZDB-GENE-030825-6; birc3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60 Abcckar 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZDB-GENE-030825-6; birc3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARIFTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EERLLTFVNWPSRIPVRPDQLAKAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAKW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51.9%;
                                                                                                                                                                                                                                                                                                                                                                      . 25, Created)
. 25, Last sequence update)
. 26, Last annotation update)
protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 202; DB Pred. No. 6.3e 9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5B68CEB6A87C8A95 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             647
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5.3e-15;
nes 21;
                                                                                                                                                                                                                                                                                           Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                   Cypriniformes;
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R GO; GO:0005515; P:protein binding; IEA.
R GO; GO:0008402; F:ubiquitin-protein ligase activity; IEA.
R GO; GO:0008270; F:zinc ion binding; IEA.
R GO; GO:0008270; P:zntc ion binding; IEA.
R GO; GO:0006516; P:anti-apoptosis; IEA.
R GO; GO:001567; P:protein ubiquitination; IEA.
R GO; GO:0042981; P:regulation of apoptosis; IEA.
R InterPro; IPR001315; CARD.
R InterPro; IPR001370; Prot_Inh_I32_IAP.
R InterPro; IPR001370; Prot_Inh_I32_IAP.
R InterPro; IPR001370; Prot_Inh_I32_IAP.
R InterPro; IPR001341; Znf_ring.
R InterPro; IPR001341; Znf_ring.
R Ffam; PF00653; BIR; 3.
R Ffam; PF00653; BIR; 3.
R Pfam; PF00051; CARD; 1.
R SMART; SM00114; CARD; 1.
R SMART; SM00114; CARD; 1.
R SMART; SM00114; RING; 1.
R R FROSITE; PS01282; BIR REPEAT_1; UNKNOWN_2.
R PROSITE; PS01282; BIR REPEAT_2; 3.
R PROSITE; PS01282; BIR REPEAT_2; 3.
R PROSITE; PS01283; BIR REPEAT_2; 3.
R PROSITE; PS01283; ZFRING_2; 1.
R PROSITE; PS01209; ZFRING_2; 1.
-i- SIMILARITY: Contains 1 RING-type zinc finger.

EMBL; AL627325; CAR47763.1; -
GO; GO:0000151; C:ubiquitin ligase complex; IEA.
GO; GO:0005151; F:protein binding; IEA.
GO; GO:0005151; F:protein binding; IEA.
GO; GO:0004842; F:ubiquitin-protein ligase activity
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0006916; P:anti-apoptosis; IEA.
GO; GO:004981; P:regulation of apoptosis; IEA.
GO; GO:0042981; P:regulation of apoptosis; IEA.
GO; GO:0042981; P:regulation of apoptosis; IEA.
InterPro; IPR001315; CARD,
InterPro; IPR001319; DEATH like.
InterPro; IPR001370; Prot Inh I32 IAP.
InterPro; IPR001370; Prot Inh I32 IAP.
InterPro; IPR001370; Prot Inh I32 IAP.
InterPro; IPR001370; Zonfring.
Pfam; PP00653; BIR; 3.
Pfam; PP00653; SIR; 3.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00238; BIR; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6ZM93 PRELIMINARY; PRT; 654 AA. Q6ZM93; Q6ZM93; Q6ZM93; Q6ZM93; Q5-JUL-2004 (TrEMBLrel. 27, Last sequence update) Q5-JUL-2004 (TrEMBLrel. 27, Last annotation update) Q5-JUL-2004 (TrEMBLrel. 27, Last annotation update) SI:DIP14.6.2 (Baculoviral IAP repeat-containing 3
                                                                                                                                                                                                                                                                                                                                                                                                                               Brachydanio rerio (Zebrafish) (Danio rerio).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.

NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                        Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=birc3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EARI FTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKFSEDFWEQHAKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPRCEYL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51.9%;
52.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 202; DB 2; I
Pred. No. 6.5e-15;
9; Mismatches 21;
                                                                                                                                                                                                                                                         igase activity;
                                                                                                                                                                                                                                                                                                                                   finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 647;
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RESULT
OBLISTI
ID IS 1
RESULT 35
Q968T8
ID Q968T
AC Q968T
DT 01-DE
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Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yang G., Wang L., Wu X.;

Submitted (SEP-2002) to the EMBL/GenBank/DDBJ dat

Submitted (SEP-2002) to the EMBL/GenBank/DDBJ dat

RMSL; AX155274; AAN46650.1; -.

RMSL; Q24306; 104Q.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:0004842; F:ubiquitin protein ligase activi

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:0008270; P:protein ubiquitination; IEA.

GO; GO:0006916; P:anti-apoptosis; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.

RGO; GO:0016567; P:protein ubiquitination; IEA.

RINEEPRO; IPR001370; Prot inh I32_IAP.

RINEEPRO; IPR001841; Znf_ring.

Pfam; PF00653; BIR; 2.

SMART; SM00238; BIR; 2.

SMART; SM00238; BIR; 2.

RPOSITE; PS01282; BIR REPEAT 1; 2.

PROSITE; PS01282; BIR REPEAT 1; 2.

PROSITE; PS50143; BIR REPEAT 1; 2.

PROSITE; PS50143; BIR REPEAT 2; 2.

RROSITE; PS50143; BIR REPEAT 2; 2.

RROSITE; PS50189; ZF RING 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QBIS31 PRELIMINARY; PRT; 346 AA.
QBIS31;
Q1-MAR-2003 (TrEMBLrel. 23, Created)
O1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
O1-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Inhibitor of apoptosis protein.
Bombyx mori (Silk moth).
  Q968T8;
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SMO0184; RING; 1.

PROSITE; PS0128; BIR REPEAT 1; UNKNOWN 2.

PROSITE; PS0143; BIR REPEAT 2; 3.

PROSITE; PS0209; CARD; 1.

PROSITE; PS0209; ZARD; 1.

PROSITE; PS00089; ZF RING 2; 1.

Metal-binding; Zinc; Zinc-finger.

Metal-binding; Zinc; Zinc-finger.

SEQUENCE 654 AA; 72995 MW; A12425D5E41A0259 CRC64;
                                                       Q968T8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
Bombycidae; Bombyx.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=7091;
                                                                                                                                                                                                 244
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                                                                                                                                                                                                                                                                                                              184 ARLATFKDWPRCMRQKPEELAEAGFFYTGQGDKTKCFYCDGGLKDWESDDVPWEQHARWF 243
                                                                                                                                                                                                                                                      61 PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
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35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                              DRCAYV 249
                                                                                                                                                                                                                                                                                                                                                 ARIFTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FPRCEYL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EARIFTFGTW--IYSVNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKW
(TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        372
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                                                                                                                                                                                                                                                                                                                                                                                                                          12;
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Pred. No. 6.6e-15;
Pred. No. 6.6e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                    Score 199; DB
Pred. No. 7.8e-
12; Mismatches
  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ databases
                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5450EB75F56A8486 CRC64;
                                                          346
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
.8e-15;
                                                          ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activity;
                                                                                                                                                                                                                                                                                                                                                                                                                          19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
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                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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Best Local S
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GO; GO:0016567; P:protein ubiquitination; IE
InterPro; IPR001370; Prot_inh_I32_IAP.
InterPro; IPR001841; Znf_ring.
Pfam; PF00653; BIR; 2.
SMART; SM00238; BIR; 2.
SMART; SM002184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR_REPEAT_1; 2.
PROSITE; PS0143; BIR_REPEAT_2; 2.
PROSITE; PS0143; BIR_REPEAT_2; 2.
PROSITE; PS50189; ZF RING_2; 1.
SEQUENCE 346 AA; 38942 MW; 6CFC6C6468894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                        Q9ESE8;
01-MAR-2001
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biochim.
EMBL; AF
EMBL; AF18343; AAG22971.1; ...

HSSP; Q13490; 1QBH.
HSSP; C10000151; C:ubiquitin ligase complex; IEA.
GO; GO:00005515; F:protein binding; IEA.
GO; GO:0004842; F:ubiquitin-protein ligase activ
GO; GO:0008270; F:zinc ion binding; IEA.
                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI TaxID=10116;
                                                                                                                                                                                                                               01-MAR-2001 (TrEMBLrel 16, Last sequence update)
01-MAR-2004 (TrEMBLrel 26, Last annotation update)
Inhibitor of apoptosis protein 2.
Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=21240184; PubMed=11341966; DOI=10.1016/S0167-4889(00)00105-1;
Hiand O., Deveraux Q.L., Maeda S., Stennicke H.R., Hammock B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-2001 (
01-JUN-2003 (
Inhibitor of
                                                                                                                                                    SEQUENCE FROM N.A.
PubMed=11860601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bombyx mori (Silk moth).
Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endoptergota; Lepidoptera; Glossata; Ditrysia; Bom
Bombycidae; Bombyx.
                                                                                                                                                                                                                                                                                                                Q9ESE8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=7091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Cloning and characterization of an inhibitor of apoptosis protein (IAP) from Bombyx mori.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        L; AF281073; AAK57560.1; -.
F; (244306; 1240.
GO:0000151; C:ubiquitin ligase complex;
GO:0004842; F:ubiquitin-protein ligase a
GO:0008270; F:zinc ion binding; IEA.
                                                                                                                                                                                                                                                                                                                                                                                 | |:
244 DRCAYV 249
                                                                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from Bombyx mori.";
im. Biophys. Acta 1499:191-198(2001)
                                                                                                                                                                                                                                                                                                                                                                                                             61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARIFTFGTWIYSVNK--EQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAKWY
                                                                                                                                                                                                                                                                                                                                                                                                           PGCKYL 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 19, Last (TrEMBLrel. 24, Last
                                                                                                                                                                                                                                                                                    (TrEMBLrel. 16, Created)
                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    apoptosis
                                                                                                                                                                                                   Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51.2%; Score 199; DB 2;
50.0%; Pred. No. 7.8e-15;
tive 12; Mismatches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6CFC6C6468894C69 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence update)
annotation update)
  ligase activity; IEA.
                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; IEA.
activity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 346;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                         0£
                IEA.
                                                                                                                                                                                                      Murinae; Rattus
                                                                                                                        the Inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bombycoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      243
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PRESCLI PRESCL
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Best Local :
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Pfam; PF00619; zf-C3HC4; 1.
SMART; SM00238; BIR; 3.
SMART; SM00114; CARD; 1.
SMART; SM00114; CARD; 1.
SMART; SM00114; CIRC; 1.
SMART; SM00114; RIRG; 1.
PROSITE; PS01282; BIR REPEAT 2; 3.
PROSITE; PS01282; BIR REPEAT 2; 3.
PROSITE; PS50143; BIR REPEAT 2; 3.
PROSITE; PS5029; CARD; 1.
PROSITE; PS5029; ZFRING 2; 1.
PROSITE; PS50089; ZFRING 2; 1.
Metal-binding; Zinc; Zinc-finger.
SEQUENCE 589 AA; 66750 MW; B4F7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oreated)
Ol-MAR-2000 (TrEMBLrel. 13, Created)
Ol-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Inhibitor of apoptosis protein 2.
Rattus norvegicus (Rat).
Eukaryota, Metazoa. ~
                                                                                                                                                                                                                      HSSP; 013490; 1QBH.

GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:0005515; F:protein binding; IEA.

GO; GO:00005515; F:protein binding; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity;

GO; GO:0008270; F:anti-apoptosis; IEA.

GO; GO:0006316; P:anti-apoptosis; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.

GO; GO:00142981; P:regulation of apoptosis; IEA.
                                                                          Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO; GO:0006916; P:anti-apoptosis; IEA.
GO; GO:0016567; P:protein ubiquitinatis
GO; GO:0042981; P:regulation of apopto
InterPro; IPR001315; CARD.
InterPro; IPR011029; DEATH like.
InterPro; IPR001370; Prot Inh I32_IAP.
InterPro; IPR001841; Znf_ring.
                                                                                                                         InterPro; IPR001315; CARD.
InterPro; IPR0011029; DEATH like
InterPro; IPR001370; Prot inh II
InterPro; IPR001841; Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    enhancer elements and activation by Biochem. J. 364:413-421(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22020585; PubMed=12023884; DOI=10.1042/BJ20011431; Dong Z., Nishiyama J., Yi X., Venkatachalam M.A., Denton M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00653; BIR;
Pfam; PF00619; CARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Gene promoter of apoptosis inhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Kidney;
                                                                                                                                                                                                                                                                                                                                                                                                                                    BL; AF190020; AAF04585.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S., Qiang M.;
1; PF00653; BIR; 3.
1; PF00619; CARD; 1.
1; PF00097; zf-C3HC4; 1.
1T; SM00238; BIR; 3.
1T; SM00114; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WFPRCEFL 308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P:anti-apoptosis; IEA.
P:protein ubiquitination;
P:regulation of apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                                                                       znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RING-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 198; DB 2;
Pred. No. 1.7e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B4F7089BD7CD285B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ယယ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ory protein IAP2:
severe hypoxia.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zinc
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; IEA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           identification
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RESULT 38
QBIZZO
QBIZZO
QBIZZ
DT 01-MAN
DT 01-
RESULT 39
Q6P6S1
ID Q6P6S
AC Q6P6S
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                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; Q13490; 1QBH.

GO; GO:0005622; C:intracellular; IEA.

GO; GO:0005515; F:protein binding; IEA.

GO; GO:0005916; P:anti-apoptosis; IEA.

GO; GO:0006916; P:regulation of apoptosis; IEA.

GO; GO:0042981; P:regulation of apoptosis; IEA.

InterPro; IPR001315; CARD.

InterPro; IPR001370; Prot_Inh_I32_IAP.

Pfam; PF00653; BIR; 3.

Pfam; PF00653; BIR; 3.

SMART; SM00238; BIR; 3.

SMART; SM00114; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q8IZZO;
Q8IZZO;
01-MAR-2003
Q6P6S1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUB=Lymph node;
Fan Z.S., Ao S.Z.;
Submitted (NOV-1999) to the
EMBL; AP207599; AAN73272.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
PRb-interacting protein RbBP-36.
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00184; RING; 1.

PROSITE; PS01282; BIR_REPEAT_1; 3.

PROSITE; PS50143; BIR_REPEAT_2; 3.

PROSITE; PS50209; CARD; 1.

PROSITE; PS50089; ZF_RING_2; 1.

Metal-binding; Zinc; Zinc-finger.

Metal-binding; Zinc; Zinc-finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01282; BIR REPEAT 1; PROSITE; PS50143; BIR REPEAT 2; PROSITE; PS50209; CARD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                              329
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                                                                                                                                                                                                                                                                     269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 HSARMSTFLYWPSSVLVQPEQLASAGFYYVDHNDDVKCFCCDGGLRCWEPGDDFWIEHAK 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                                                                            36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                       YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WFPRCEFL 308
                                                                                                                                                                                                                   WYPGCKYL
                                                                                                                                                                                                                                                                  HAARMRTFMYWPSSVPVQPEQLASAGFYYVGRNDDVKCFCCDGGLRCWESGDDPWVEHAK 328
                                                                                                                                                              WFPRCEFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WYPGCKYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nilarity 52.9%;
Conservative 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534 AA;
                                                                                                                                                                                                                                                                                                                                                                            Conservative
                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60366 MW; 0403170475BE0872 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                     50.6%;
                                                                                                                                                                                                                                                                                                                                                                            9;
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                                                                                                                                                                                                                                                                                                                                                                                                     Score 197; DB 2;
Pred. No. 2.1e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GenBank/DDBJ databases
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Pred. No. 1.7e-14;
9; Mismatches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                           589 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         534 AA
                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2; Length 534;
                                                                                                                                                                                                                                                                                                                                                                            21;
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WYPGCKYL 66

241

HSARMRTFLYWPSSVLVQPEQLASAGFYYVDHNDDVKCFCCDGGLRCWEPGDDPWIEHAK

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                                                                                                                                               Query Match
Best Local S
                                                                                                                  Matches
                                                                                                                                                                                                                                                                                      Pfam; PP00653; BIR; 3. Pfam; PP00653; BIR; 3. Pfam; PP00619; CARD; 1. Pfam; PP00619; zf-C3HC4; 1. SMART; SM00238; BIR; 3. SMART; SM00114; CARD; 1. SMART; SM00114; CARD; 1. PROSITE; PS01182; BIR REPEAT 1; 3. PROSITE; PS01182; BIR REPEAT 2; 3. PROSITE; PS50189; CARD; 1. PROSITE; PS50089; ZF RIMG 2; 1. Metal-binding; Zinc-finger. SEQUENCE 589 Ab. 66846 MW. 552E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: Contains 1 RING-type zinc finger.

RMBL, BC062055; AAH62055.1;
-GO; GO:0000151; C:ubiquitin ligase complex; IEA.

GO; GO:0005515; F:protein binding; IEA.

GO; GO:0004842; F:ubiquitin-protein ligase activity;

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:0006916; P:protein ubiquitination; IEA.

GO; GO:0016567; P:protein ubiquitination; IEA.

GO; GO:0042981; P:regulation of apoptosis; IEA.
                                                                                                                                                                                                                                                                      Metal-binding;
SEQUENCE 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jones S.J., Marra M.A.; "Jones S.J., Marra M.A.; analysis of more than 15,000 and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Felngold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F., Proches R.F., Jordan H., Moore T., Max S.I., Wang J., Wang J., Heieh F., Proches R.F., Jordan H., Woore R.F., Wang J., Wang J., Wang J., Heieh F., Proches R.F., Jordan H., Woore R.F., Wang J., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR011029;
InterPro; IPR001370;
InterPro; IPR001841;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Prostate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Proc.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Apoptosis inhibitor
Name=Api2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004
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05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001315;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                    щ
                                                                                                                                                   Similarity
YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 (TrEMBLrel. 4 (TrEMBLrel. 4 (TrEMBLrel. 4 (TrEMBLrel. inhibitor 2.
                                                                                                              Conservative
                                                                                                                                                                                                                                                                      AA,
                                                                                                                                                                                                                                                                      66846 MW;
                                                                                                                                               50.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEATH like.
Prot_inh_132_IAP.
Znf_ring.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27,
27,
27,
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
                                                                                                          Score 197; DB 2;
Pred. No. 2.3e-14;
9; Mismatches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                      526ECBAA9052EF49 CRC64;
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                                                                                                                  21;
                                                                                                                                                                                    Length 589
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                                                                                                              Gaps
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301

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RESULT 
Pfam; PP00653; BIR; 3:
Pfam; PF00619; CARD; 1.
Pfam; PF00619; zf-C3HC4; 1.
Pfam; PF00097; zf-C3HC4; 1.
SMART; SM00238; BIR; 33.
SMART; SM00114; CARD; 1.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
SMART; SM00184; RING; 1.
PROSITE; PS01282; BIR REPEAT 1; 3
PROSITE; PS01282; BIR REPEAT 2; 3
PROSITE; PS50209; CARD; 1.
                                                                                                                                                              InterPro; IPR001370; BIR.
InterPro; IPR001315; CARD.
InterPro; IPR011029; DEATH like.
InterPro; IPR011841; Znf_ring.
Pfam; PF00653; BIR; 3.
Pfam; PF00619; CARD; 1.
Pfam; PF00619; Zf-C3HC4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIR2_MOUSE STANDARD; PRT; 612 AA. Q62210; 008864; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Baculoviral TAP repeat-containing protein 2 (Inhibitor of apoptosis protein 2) (MIAP2) (MIAP-2). Name=Birc2; Synonyms=Birc3, Tap2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities
or send a
                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; L49433; AAC42078.1;
EMBL; U88909; AAC53532.1;
HSSP; Q13490; 1QBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.

MEDILINE=96128127; PubMed=8548810; DOI=10.1016/0092-8674(95)90149-3;

Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., Goeddel D.V.;

"The TNFR2-TRAP signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins.";

Cell 83:1243-1252(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Skeletal muscle;
MEDLINE=98110590; PubMed=9441758; DOI=10.1006/geno.1997.5059;
Liston P., Lefebvre C., Fong W.G., Xuan J.Y., Korneluk R.G.;
"Genomic characterization of the mouse inhibitor of apoptosis
                                                                                                                                                                                                                                                                                                                                                                     MGD; MGI:1197009; Birc3.
GO; GO:0005515; F:protein binding; IPI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 and 2 genes.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         email to license@isb-sib.ch).
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Sciurognathi; Muridae;
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; Murinae; Mus.
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                                                                          Best
                                                                  Matches
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Best Local
                                                                                                   Apoptosis;
REPEAT
REPEAT
REPEAT
REPEAT
DOMAIN
ZN FING
CONFLICT
SEQUENCE
                                                                                                                                                                       PROSITE; PS00518; PROSITE; PS50089;
322
                                 262 HSARLRTFLYWPPSVPVQPEQLASAGFYYVDRNDDVKCFCCDGGLRCWEPGDDPWIEHAK
                                                 1 YEARIFTFGTWIYS--VNKEQLARAGFYALGEGDKVKCFHCGGGLTDWKPSEDPWEQHAK
                                                                          Similarity
WFPRCEFL
                MADCKAT 66
                                                                                                   46
177
262
447
447
565
380
612 AA;
                                                                                                                                                               Direct
                                                                  Conservative
                                                                                                                                                             ZF_RING_1; FALSE_NEG.
ZF_RING_2; 1.
protein sequencing; R
329
                                                                                                            113
243
329
537
600
380
                                                                                                     69676
                                                                          50.6%;
                                                                                                     WW;
                                                                                                                                                             sequencing; Repeat; Zinc-finger
                                                                  9.
                                                                                                                            BIR 1.
BIR 2.
BIR 3.
CARD.
                                                                 Score 197; DB 1;
Pred. No. 2.4e-14;
9; Mismatches 21
                                                                                                            RING-type.
E -> K (in
                                                                                                     -> K (in Ref. 2).
E08969D93C6C610D CRC64;
                                                                                  Length
                                                                  Indels
                                                                                   612;
                                                                  2
                                                                 Gaps
                                  321
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Search completed: June 15, 2005, 17:39:36 Job time: 113.5 secs